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* * * * * * * * * * * * * * STN  Columbus  * * * * * * * * * * * * * * * *
FILE 'HOME' ENTERED AT 15:54:40 ON 10 MAR 2004
=> file biosis,caba,caplus,embase,japio,lifesci,medline,scisearch,uspatfull
=> e ades edwin w/au
E1            5     ADES EDWIN A/AU
E2            1     ADES EDWIN E/AU
E3           95 --> ADES EDWIN W/AU
E4           21     ADES F/AU
E5           13     ADES G L/AU
E6            2     ADES GARY/AU
E7            1     ADES GARY L/AU
E8            2     ADES GUINDI A/AU
E9            6     ADES H/AU
E10          12     ADES H F/AU
E11          59     ADES H W/AU
E12           1     ADES HARRIET/AU
=> s e3 and streptocc?
L1            0 "ADES EDWIN W"/AU AND STREPTOCC?
=> s e3 and strept?
L2           25 "ADES EDWIN W"/AU AND STREPT?
=> dup rem l2
PROCESSING COMPLETED FOR L2
L3           15 DUP REM L2 (10 DUPLICATES REMOVED)
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 15 ANSWERS - CONTINUE? Y/(N):y

L3   ANSWER 1 OF 15  USPATFULL on STN
AN     2003:289313  USPATFULL
TI       ***Streptococcus***   pneumoniae 37-kDa surface adhesin a protein
IN     Sampson, Jacquelyn, College Park, GA, UNITED STATES
       Russell, Harold, Efland, NC, UNITED STATES
       Tharpe, Jean A,, Lithonia, GA, UNITED STATES
           ***Ades, Edwin W.***  , Atlanta, GA, UNITED STATES
       Carlone, George M., Stone Mountain, GA, UNITED STATES
PI     US 2003204074      A1   20031030
AI     US 2003-455109     A1   20030604 (10)
RLI    Division of Ser. No. US 2001-754809, filed on 3 Jan 2001, PENDING
       Division of Ser. No. US 1998-221753, filed on 28 Dec 1998, GRANTED, Pat.
       No. US 6217884 Division of Ser. No. US 1996-715131, filed on 17 Sep
       1996, GRANTED, Pat. No. US 5854416 Continuation-in-part of Ser. No. US
       1994-222179, filed on 4 Apr 1994, ABANDONED Continuation-in-part of Ser.
       No. US 1991-791377, filed on 17 Sep 1991, GRANTED, Pat. No. US 5422427
DT     Utility
FS     APPLICATION
LREP   NEEDLE & ROSENBERG, P.C., SUITE 1000, 999 PEACHTREE STREET, ATLANTA, GA,
       30309-3915
CLMN   Number of Claims: 26
ECL    Exemplary Claim: 1
DRWN   No Drawings
LN.CNT 1949
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     The invention provides a nucleic acid encoding the 37-kDa protein from
         ***Streptococcus***   pneumoniae. Also provided are isolated nucleic
       acids comprising a unique fragment of at least 10 nucleotides of the
       37-kDa protein. The invention also provides purified polypeptides
       encoded by the nucleic acid encoding the 37-kDa protein from and the
       nucleic acids comprising a unique fragment of at least 10 nucleotides of
       the 37-kDa protein. Also provided are antibodies which selectively binds
       the polypeptides encoded by the nucleic acid encoding the 37-kDa protein
       and the nucleic acids comprising a unique fragment of at least 10
       nucleotides of the 37-kDa protein. Also provided are vaccines comprising
       immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa
       protein and the nucleic acids comprising a unique fragment of at least
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10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L3 ANSWER 2 OF 15 USPATFULL on STN
AN 2003:153639 USPATFULL
TI ***Streptococcus*** pneumoniale 37-kDa surface adhesion a protein
IN Sampson, Jacquelyn, College Park, GA, UNITED STATES
Russell, Harold, Efland, NC, UNITED STATES
Tharpe, Jean A., Lithonia, GA, UNITED STATES
Ades, Edwin W. , Atlanta, GA, UNITED STATES
Carlone, George M., Stone Mountain, GA, UNITED STATES
PI US 2003105307 A1 20030605
AI US 2001-754809 A1 20010103 (9)
RLI Division of Ser. No. US 1998-221753, filed on 28 Dec 1998, PATENTED
Division of Ser. No. US 1996-715131, filed on 17 Sep 1996, PATENTED
Continuation-in-part of Ser. No. US 1994-222179, filed on 4 Apr 1994, ABANDONED Continuation-in-part of Ser. No. US 1991-791377, filed on 17 Sep 1991, PATENTED
DT Utility
FS APPLICATION
LREP Shari J. Corin, Ph.D., NEEDLE & ROSENBERG, P.C., The Candler Building, Suite 1200, 127 Peachtree Street, N.E., Atlanta, GA, 30303-1811
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1946
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L3 ANSWER 3 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

DUPLICATE 1
AN 2003:478617 BIOSIS
DN PREV200300478617
TI Immunizations with pneumococcal surface protein A and pneumolysin are protective against pneumonia in a murine model of pulmonary infection with ***Streptococcus*** pneumoniae.
AU Briles, David E. [Reprint Author]; Hollingshead, Susan K.; Paton, James C.; ***Ades, Edwin W.*** ; Novak, Lea; van Ginkel, Frederik W.; Benjamin, William H. Jr.
CS University of Alabama at Birmingham, 845 19th St. South, BBRB 658, Birmingham, AL, 35294-2170, USA
dbriles@uab.edu
SO Journal of Infectious Diseases, (1 August 2003) Vol. 188, No. 3, pp. 339-348. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 15 Oct 2003
Last Updated on STN: 15 Oct 2003
AB Intranasal infection of mice with certain strains of capsular group 19 ***Streptococcus*** pneumoniae can result in focal pneumonia in the absence of bacteremia. Using this model of murine pneumonia, we demonstrated that immunization with recombinant forms of either pneumococcal surface protein A (PspA) or PdB (a genetically detoxified derivative of pneumolysin) elicited significant protection against focal pulmonary infection. This may be the first demonstration that a proposed vaccine antigen can protect against pneumococcal pneumonia. The best protection was obtained by immunizing mice with a mixture of PspA and PdB, indicating that the protection elicited by these antigens can complement each other. This result is in agreement with previous studies that used pneumococcal sepsis and nasal colonization models and demonstrate that the best protein vaccines for prevention of infection may be those that include more than one protection-eliciting pneumococcal protein.

L3 ANSWER 4 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2003:202251 BIOSIS
DN PREV200300202251
TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti-PsaA antibodies.
AU Romero-Steiner, Sandra [Reprint Author]; Pilishvili, Tamar; Sampson, Jacquelyn S.; Johnson, Scott E.; Stinson, Annie; Carlone, George M.; ***Ades, Edwin W.***
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA
SSteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (March 2003) Vol. 10, No. 2, pp. 246-251. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 23 Apr 2003
Last Updated on STN: 23 Apr 2003
AB The role of pneumococcal (Pnc) surface adhesin A (PsaA) in the adherence of ***Streptococcus*** pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti-PsaA antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant PsaA (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti-PsaA IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured as percent

reduction in CFU counts compared to those of uninhibited controls). Pnc adherence was dependent on capsular phenotype (no or low adherence for opaque strains). With an inoculum of 104 to 105 bacteria/well, the mean +- standard deviation count in controls was 163 +- 32 CFU/well for transparent strains. Low adherence was observed for a PsaA-minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a dose-response fashion with a range of 98 to 8%, depending on the serum anti-PsaA antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels. Absorption of sera with a PsaA-minus mutant did not result in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by lipidated rPsaA at 2.5 mug/ml. Our data support the argument that PsaA is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to PsaA vaccination.

L3 ANSWER 5 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2004:28184 BIOSIS
DN PREV200400029304
TI Analysis of recombinant acylated pneumococcal surface adhesin A of ***Streptococcus*** pneumoniae by mass spectrometry.
AU De, Barun K.; Woolfitt, Adrian R. [Reprint Author]; Barr, John R.; Daneshvar, Maryam I.; Sampson, Jacquelyn S.; ***Ades, Edwin W.*** ; Carlone, George M.
CS Division of Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA awoolfitt@cdc.gov
SO Archives of Biochemistry and Biophysics, (November 15 2003) Vol. 419, No. 2, pp. 147-157. print.
ISSN: 0003-9861 (ISSN print).
DT Article
LA English
ED Entered STN: 31 Dec 2003
Last Updated on STN: 31 Dec 2003
AB ***Streptococcus*** pneumoniae pneumococcal surface adhesin A (PsaA) is a species-common, immunogenic surface lipoprotein. In this study, the psaA gene was expressed as a nonfusion acylated protein in an Escherichia coli expression system. Yields of pure recombinant PsaA (rPsaA) were 8-10 mg/liter of fermentation culture. Analysis of rPsaA tryptic digests by HPLC-electrospray mass spectrometry (MS) confirmed 98% of the expected protein sequence. GC/MS data demonstrated very similar acylation of native and rPsaA by C12:0-C22:0 fatty acids, with C16 and C18 predominating. Negative ion electrospray MS/MS analysis of the rPsaA lipid anchor released by Pronase-E confirmed that the structure was based on an N-terminal palmitoylcysteine (Pam3Cys). Electrospray MS heterogeneity analysis of intact rPsaA indicated that all of the observed heterogeneity could be accounted for by the fatty acid distributions. The availability of well-characterized rPsaA will facilitate the continued research and development of protein-based vaccines for the prevention of pneumococcal disease.

L3 ANSWER 6 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:72998 BIOSIS
DN PREV200400072143
TI CCR5 and PsaA-specific correlates of clinical pneumococcal immunity.
AU Palaniappan, Ravichandran [Reprint Author]; Briles, David E.; Hollingshead, Susan K.; Paton, James C.; ***Ades, Edwin W.*** ; Lillard, James W. Jr. [Reprint Author]
CS Microbiology, Biochemistry, and Immunology, Morehouse School of Medicine, 720 Westview Drive, Atlanta, GA, 30310, USA
SO FASEB Journal, (April 14 2003) Vol. 17, No. 7, pp. C117. print.

Meeting Info.: 90th Anniversary Annual Meeting of the American Association of Immunologists. Denver, CO, USA. May 06-10, 2003. American Association of Immunologists.
ISSN: 0892-6638 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 4 Feb 2004
Last Updated on STN: 4 Feb 2004

L3 ANSWER 7 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2004:72875 BIOSIS
DN PREV200400072020
TI Role of RANTES in pneumococcal immunopathogenesis.
AU Palaniappan, Ravichandran [Reprint Author]; Singh, Shailesh [Reprint Author]; Singh, Udai P. [Reprint Author]; Briles, David E.; Hollingshead, Susan K.; Paton, James C.; Taub, Dennis D.; ***Ades, Edwin W.*** ; Lillard, James W. Jr. [Reprint Author]
CS Microbiology, Biochemistry, and Immunology, Morehouse School of Medicine, 720 Westview Drive, Atlanta, GA, 30310, USA
SO FASEB Journal, (April 14 2003) Vol. 17, No. 7, pp. C85. print.
Meeting Info.: 90th Anniversary Annual Meeting of the American Association of Immunologists. Denver, CO, USA. May 06-10, 2003. American Association of Immunologists.
ISSN: 0892-6638 (ISSN print).
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 4 Feb 2004
Last Updated on STN: 4 Feb 2004

L3 ANSWER 8 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:906265 CAPLUS
DN 138:3662
TI M protein-derived peptide epitopes for diagnosis and treatment of infection by various serotypes of ***Streptococcus*** group A
IN Beall, Bernard W.; Carlone, George M.; Sampson, Jacquelyn S.; ***Ades,*** *** Edwin W.***
PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, Centers for Disease Control and Prevention, Technology Transfer Office, USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002094851	A2	20021128	WO 2002-US15909	20020520
WO 2002094851	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-291835P P 20010518
AB This invention, in one aspect, relates to synthetic immunoreactive peptides. These peptides are approx. 20-25 amino acids in length which are portions of the N termini of the M proteins of the most prevalent

United States (U.S.) Group A ***Streptococcus*** (GAS) serotypes. At least some of the synthetic peptides can be recognized by M type-specific antibodies and are capable of eliciting functional opsonic antibodies and/or anti-attachment antibodies without eliciting tissue cross-reactive antibodies. In another aspect, it relates to compns. or vaccines comprising these synthetic serotype-specific peptides, including polypeptides and proteins. The invention may also be isolated antibodies which are raised in response to the peptides, compns. or vaccines. The invention further relates to kits for using the peptides, compns., or antibodies. In still further aspects, the invention also relates to methods for using the peptides, compns., vaccines, or antibodies and methods for tailoring vaccines.

L3 ANSWER 9 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:51509 CAPLUS
DN 136:117369
TI Multiple antigenic peptides induce protective immune response against ***Streptococcus*** pneumoniae
IN ***Ades, Edwin W.*** ; Johnson, Scott E.; Jue, Danny L.; Sampson, Jacquelyn S.; Carlone, George M.
PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002004497	A2	20020117	WO 2001-US21626	20010710
	WO 2002004497	A3	20010710		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001071935	A5	20020121	AU 2001-71935	20010710
	EP 1301530	A2	20030416	EP 2001-950993	20010710
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004502782	T2	20040129	JP 2002-509360	20010710
PRAI	US 2000-613092	A2	20000710		
	WO 2001-US21626	W	20010710		

AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with lipidated peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.

L3 ANSWER 10 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2002:303982 BIOSIS
DN PREV200200303982
TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein pneumococcal surface adhesin A.

AU Johnson, Scott E. [Reprint author]; Dykes, Janet K.; Jue, Danny L.; Sampson, Jaquelyn S.; Carlone, George M.; ***Ades, Edwin W.***
CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Respiratory Diseases Branch, National Center for Infectious Diseases, Atlanta, GA, 30333, USA
sjohnson@cdc.gov
SO Journal of Infectious Diseases, (15 February, 2002) Vol. 185, No. 4, pp. 489-496. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Pneumococcal surface adhesin A (PsaA), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti-PsaA monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as lipidated or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine the inhibitory effect of induced antibodies on carriage of pneumococcal serotypes 2,4, and 6B. Antibodies to each of the various peptides tested reduced carriage of the 3 serotypes. Reduction in carriage by nonlipidated multiantigenic peptide antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with lipidated (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. PsaA peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

L3 ANSWER 11 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 2001:465413 BIOSIS
DN PREV200100465413
TI ***Streptococcus*** pneumoniae 37-kDa surface adhesin a protein.
AU Sampson, Jacquelyn S. [Inventor, Reprint author]; Russell, Harold [Inventor]; Tharpe, Jean A. [Inventor]; ***Ades, Edwin W.*** [Inventor]; Carlone, George M. [Inventor]
CS College Park, GA, USA
ASSIGNEE: The United States of America as represented by the Department of Health and Human Services
PI US 6217884 April 17, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 17, 2001) Vol. 1245, No. 3. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 3 Oct 2001
Last Updated on STN: 23 Feb 2002
AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the

steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L3 ANSWER 12 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:577027 CAPLUS
DN 131:198616
TI Epitope peptides immunogenic against ***Streptococcus*** pneumoniae and their use in vaccines
IN Carlone, George M.; ***Ades, Edwin W.*** ; Sampson, Jacquelyn S.; Tharpe, Jean A.; Zeiler, Joan Louise; Westerink, Maria Anna Julia
PA The Government of the United States of America, Represented by the Secretary of the Department of Health and Human Services, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9945121	A1	19990910	WO 1999-US4326	19990226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326408	AA	19990910	CA 1999-2326408	19990226
AU 9927950	A1	19990920	AU 1999-27950	19990226
AU 758764	B2	20030327		
BR 9908476	A	20001205	BR 1999-8476	19990226
EP 1060249	A1	20001220	EP 1999-908543	19990226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI US 1998-76565P	P	19980302		
WO 1999-US4326	W	19990226		

AB Peptides are provided which immunospecifically bind to monoclonal antibodies specific for the 37-kDa pneumococcal surface adhesion A protein (PsaA) of ***Streptococcus*** pneumoniae of the invention, and that are immunogenic against ***Streptococcus*** pneumoniae infection. Also provided are vaccines comprising such immunogenic polypeptides, and methods of conferring protective immunity against ***Streptococcus*** pneumoniae infection by administering therapeutic compns. comprising the immunogenic peptides of the invention. Also provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, and methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject. In addn. a phage display method of identifying the sequence of a peptide potentially capable of eliciting protective immunity against a pathogenic microorganism is provided.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:511257 CAPLUS
DN 131:154473
TI ***Streptococcus*** pneumoniae lipidated PsaA protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection
IN ***Ades, Edwin W.*** ; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940200	A1	19990812	WO 1999-US379	19990114
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2319404	AA	19990812	CA 1999-2319404	19990114
	AU 9923131	A1	19990823	AU 1999-23131	19990114
	EP 1053329	A1	20001122	EP 1999-903011	19990114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9909097	A	20001205	BR 1999-9097	19990114
	JP 2002505083	T2	20020219	JP 2000-530614	19990114
PRAI	US 1998-17782	A	19980203		
	WO 1999-US379	W	19990114		

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of ***Streptococcus*** pneumoniae gene psaA pneumococcal surface protein A (PsaA, previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of lipidated PsaA proteins. The invention further provides purifn. methods used to obtain the recombinant PsaA proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic lipidated PsaA proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of lipidated PsaA proteins was included in the invention.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 14 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 6
AN 1999:21723 CAPLUS
DN 130:77112
TI ***Streptococcus*** pneumoniae 37-kDa surface adhesin A protein and its gene
IN Sampson, Jacquelyn S.; Russell, Harold; Tharpe, Jean A.; ***Ades, Edwin*** *** W.*** ; Carlone, George M.
PA United States Dept. of Health and Human Services, USA
SO U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 222,179, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5854416	A	19981229	US 1996-715131	19960917
	US 5422427	A	19950606	US 1991-791377	19911114
	US 6312944	B1	20011106	US 1994-356106	19941215
	US 6217884	B1	20010417	US 1998-221753	19981228
	US 2003105307	A1	20030605	US 2001-754809	20010103
	US 2003204074	A1	20031030	US 2003-455109	20030604
PRAI	US 1991-791377	A2	19911114		
	US 1994-222179	B2	19940404		
	US 1996-715131	A3	19960917		
	US 1998-221753	A3	19981228		
	US 2001-754809	A3	20010103		

AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of contg. ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 7

AN 1998:212287 BIOSIS

DN PREV199800212287

TI Immunoreactivity of five monoclonal antibodies against the 37 kilodalton common cell wall protein (PsaA) of ***Streptococcus*** pneumoniae.

AU Crook, Jennifer; Tharpe, Jean A.; Johnson, Scott E.; Williams, Derrick B.; Stinson, Annie R.; Facklam, Richard R.; ***Ades, Edwin W.*** ; Caroline, George M.; Sampson, Jacquelyn S. [Reprint author]

CS Cent. Disease Control and Prevention, 1600 Clifton Road NE, Mailstop G05, Atlanta, GA 30333, USA

SO Clinical and Diagnostic Laboratory Immunology, (March, 1998) Vol. 5, No. 2, pp. 205-210. print.
ISSN: 1071-412X.

DT Article

LA English

ED Entered STN: 11 May 1998
Last Updated on STN: 11 May 1998

AB Five monoclonal antibodies (MAbs) were produced against the ***Streptococcus*** pneumoniae pneumococcal surface adhesin A (PsaA) 37-kDa common cell wall protein. These antibodies were used in a dot immunoblot and Western blot study of clinical isolates of S. pneumoniae to detect the presence of the protein. By both assays, the MAbs reacted with clinical isolates representing the 23 type-specific serotypes present in

the licensed pneumococcal polysaccharide vaccine. Western blot analysis confirmed the presence of a protein migrating in the gel with a molecular mass of 37 kDa. An extension of the study by using dot immunoblot analysis that included an analysis of the 90 serotypes of S. pneumoniae showed that all five MAbs reacted with 89 of the 90 serotypes tested. MAb 1B6, the exception, did not react with S. pneumoniae serotype 16F. Dot immunoblot analysis of the MAbs with Enterococcus faecalis and viridans ***streptococci*** showed varied reactivity patterns, depending on the species. The MAbs against the 37-kDa antigen did not react with Escherichia coli, respiratory pathogens, or nonpathogens representing 22 genera and 29 species of bacteria. All five MAbs also reacted with five multidrug-resistant strains of S. pneumoniae. In summary, these MAbs may be useful for detection of pneumococcal antigen and may lead to the development of diagnostic assays for pneumococcal disease.

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=> e carlone george m/au
E1            2     CARLONE G X/AU
E2           17     CARLONE GEORGE/AU
E3          143 --> CARLONE GEORGE M/AU
E4            1     CARLONE GEORGE MICHAEL/AU
E5            3     CARLONE GIULIA/AU
E6            4     CARLONE H B/AU
E7            2     CARLONE HEIDI B/AU
E8            6     CARLONE J/AU
E9            2     CARLONE J P/AU
E10           5     CARLONE JAMBOR C/AU
E11           4     CARLONE JAMBOR CASSANDRA/AU
E12           1     CARLONE JOYCE/AU

=> s e2-e3 and strept?
L4           57 ("CARLONE GEORGE"/AU OR "CARLONE GEORGE M"/AU) AND STREPT?

=> dup rem l4
PROCESSING COMPLETED FOR L4
L5           39 DUP REM L4 (18 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 39 ANSWERS - CONTINUE? Y/(N):y

L5   ANSWER 1 OF 39  USPATFULL on STN
AN     2003:289313  USPATFULL
TI       ***Streptococcus***  pneumoniae 37-kDa surface adhesin a protein
IN     Sampson, Jacquelyn, College Park, GA, UNITED STATES
       Russell, Harold, Efland, NC, UNITED STATES
       Tharpe, Jean A,, Lithonia, GA, UNITED STATES
       Ades, Edwin W., Atlanta, GA, UNITED STATES
           ***Carlone, George M.***  , Stone Mountain, GA, UNITED STATES
PI     US 2003204074      A1   20031030
AI     US 2003-455109     A1   20030604 (10)
RLI    Division of Ser. No. US 2001-754809, filed on 3 Jan 2001, PENDING
       Division of Ser. No. US 1998-221753, filed on 28 Dec 1998, GRANTED, Pat.
       No. US 6217884 Division of Ser. No. US 1996-715131, filed on 17 Sep
       1996, GRANTED, Pat. No. US 5854416 Continuation-in-part of Ser. No. US
       1994-222179, filed on 4 Apr 1994, ABANDONED Continuation-in-part of Ser.
       No. US 1991-791377, filed on 17 Sep 1991, GRANTED, Pat. No. US 5422427
DT     Utility
FS     APPLICATION
LREP   NEEDLE & ROSENBERG, P.C., SUITE 1000, 999 PEACHTREE STREET, ATLANTA, GA,
       30309-3915
CLMN   Number of Claims: 26
ECL    Exemplary Claim: 1
DRWN   No Drawings
```

LN.CNT 1949
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L5 ANSWER 2 OF 39 USPATFULL on STN
AN 2003:153639 USPATFULL
TI ***Streptococcus*** pneumoniale 37-kDa surface adhesion a protein
IN Sampson, Jacquelyn, College Park, GA, UNITED STATES
Russell, Harold, Efland, NC, UNITED STATES
Tharpe, Jean A., Lithonia, GA, UNITED STATES
Ades, Edwin W., Atlanta, GA, UNITED STATES
Carlone, George M. , Stone Mountain, GA, UNITED STATES
PI US 2003105307 A1 20030605
AI US 2001-754809 A1 20010103 (9)
RLI Division of Ser. No. US 1998-221753, filed on 28 Dec 1998, PATENTED
Division of Ser. No. US 1996-715131, filed on 17 Sep 1996, PATENTED
Continuation-in-part of Ser. No. US 1994-222179, filed on 4 Apr 1994, ABANDONED Continuation-in-part of Ser. No. US 1991-791377, filed on 17 Sep 1991, PATENTED
DT Utility
FS APPLICATION
LREP Shari J. Corin, Ph.D., NEEDLE & ROSENBERG, P.C., The Candler Building, Suite 1200, 127 Peachtree Street, N.E., Atlanta, GA, 30303-1811
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1946
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least

10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L5 ANSWER 3 OF 39 USPATFULL on STN
AN 2003:37560 USPATFULL
TI Methods and compositions for the simultaneous detection of multiple analytes
IN Martinez, Joseph E., McDonough, GA, UNITED STATES
Carlone, George M. , Stone Mountain, GA, UNITED STATES
PA the United States of America
PI US 2003027205 A1 20030206
AI US 2002-259907 A1 20020927 (10)
RLI Continuation of Ser. No. WO 2001-US9576, filed on 26 Mar 2001, PENDING
PRAI US 2000-192712P 20000328 (60)
DT Utility
FS APPLICATION
LREP FITCH EVEN TABIN AND FLANNERY, 120 SOUTH LA SALLE STREET, SUITE 1600, CHICAGO, IL, 60603-3406
CLMN Number of Claims: 21
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 836
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Methods and compositions comprising immunoassays for the detection of antigens and antibodies in a sample are described. In particular, the present invention provides assays that are useful for the rapid and simultaneous detection of multiple different antigens and antibodies. In preferred embodiments, the assays include fluorescent labels of multiple wavelengths or intensities, which are used to label the antigens and antibodies directly and to label beads coated with molecules specific for the antigen or antibody. The detection of a fluorescence shift indicates the presence or identity of the antigen or antibody in the sample.

L5 ANSWER 4 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 1
AN 2003:346627 BIOSIS
DN PREV200300346627
TI Serological criteria for evaluation and licensure of new pneumococcal conjugate vaccine formulations for use in infants.
AU Jodar, Luis; Butler, Jay; ***Carlone, George*** ; Dagan, Ron; Goldblatt, David; Kayhty, Helena; Klugman, Keith; Plikaytis, Brian; Siber, George; Kohberger, Robert; Chang, Ih; Cherian, Thomas [Reprint Author]
CS Department of Vaccines and Biologicals, World Health Organization, CH-1211, Geneva, 27, Switzerland
cheriant@who.int
SO Vaccine, (4 July 2003) Vol. 21, No. 23, pp. 3265-3272. print.
ISSN: 0264-410X (ISSN print).
DT Article
LA English
ED Entered STN: 30 Jul 2003
Last Updated on STN: 30 Jul 2003
AB The World Health Organization (WHO) is undertaking a series of

consultations on serological criteria for the evaluation and licensure of new formulations/combinations or different vaccination schedules of pneumococcal conjugate vaccines. The lack of a definitive serological correlate of protection and the multiplicity of antigens involved, especially since the clinical efficacy of most of the individual serotypes represented in the only licensed vaccine has not been established, are hindering the formulation of criteria for licensure of new formulations or combinations of the vaccine. This report analyses the various options with their relative merits and drawbacks and provides preliminary recommendations as guidance to regulatory agencies in evaluating these vaccines for the purposes of licensure. More detailed recommendations for production and control of pneumococcal conjugate vaccines, including criteria for evaluation for licensure, are currently being drafted.

L5 ANSWER 5 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2004:37601 BIOSIS
DN PREV200400038174
TI Multilaboratory evaluation of a viability assay for measurement of opsonophagocytic antibodies specific to the capsular polysaccharides of ***Streptococcus*** pneumoniae.
AU Romero-Steiner, Sandra [Reprint Author]; Frasch, Carl; Concepcion, Nelydia; Goldblatt, David; Kayhty, Helena; Vakevainen, Merja; Laferriere, Craig; Wauters, Dominique; Nahm, Moon H.; Schinsky, Mark F.; Plikaytis, Brian D.; ***Carlone, George M.***
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA
Ssteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (November 2003) Vol. 10, No. 6, pp. 1019-1024. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 7 Jan 2004
Last Updated on STN: 7 Jan 2004
AB Opsonophagocytosis is a correlate of protection that measures the functional activity of vaccine-induced antibodies. A standardized opsonophagocytosis assay (OPA) should be used as part of the evaluation of current and future pneumococcal (Pnc) polysaccharide (Ps)-based vaccines. We enrolled five laboratories to evaluate a previously standardized viability OPA. Each laboratory was provided with a detailed OPA protocol, seven target Pnc strains (serotypes 4, 6B, 9V, 14, 18C, 19F, and 23F), two quality control sera and 12 paired sera (blinded) from adult donors who received one dose of the 23-valent Pnc Ps vaccine. Laboratories sent their results to the Centers for Disease Control and Prevention for analysis. Sera were tested in duplicate (single run), and the results were averaged to yield a single OPA titer (gtoreq50% killing) for each serum sample. The percentage of sera within one or two dilutions of the calculated median OPA titer was determined for each laboratory and for each serotype. In general, laboratories were capable of detecting OPA titers within one or two dilutions of the median for at least 75 and 88%, respectively, of the sera tested. The level of agreement with the median OPA titers varied depending on the participating laboratory (overall agreement=0.8 (99% confidence interval=0.75 to 0.85)). All OPA median titers reported for quality control sera were within one dilution of the expected titer. We conclude that this OPA can be done in multiple laboratories with a high degree of interlaboratory reproducibility.

L5 ANSWER 6 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2003:452956 BIOSIS
DN PREV200300452956

TI Enzyme-linked immunosorbent assay for quantitation of human antibodies to pneumococcal polysaccharides.
AU Wernette, Catherine M.; Frasch, Carl E.; Madore, Dace; ***Carlone,*** ***George*** ; Goldblatt, David; Plikaytis, Brian; Benjamin, William; Quataert, Sally A.; Hildreth, Steve; Sikkema, Daniel J.; Kayhty, Helena; Jonsdottir, Ingileif; Nahm, Moon H. [Reprint Author]
CS Department of Pathology and Microbiology, University of Alabama at Birmingham, Birmingham, AL, 35249-7331, USA
nahm@uab.edu
SO Clinical and Diagnostic Laboratory Immunology, (July 2003) Vol. 10, No. 4, pp. 514-519. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 1 Oct 2003
Last Updated on STN: 1 Oct 2003

L5 ANSWER 7 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2003:202251 BIOSIS
DN PREV200300202251
TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti-PsaA antibodies.
AU Romero-Steiner, Sandra [Reprint Author]; Pilishvili, Tamar; Sampson, Jacquelyn S.; Johnson, Scott E.; Stinson, Annie; ***Carlone, George*** ***M.*** ; Ades, Edwin W.
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA
SSteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (March 2003) Vol. 10, No. 2, pp. 246-251. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 23 Apr 2003
Last Updated on STN: 23 Apr 2003
AB The role of pneumococcal (Pnc) surface adhesin A (PsaA) in the adherence of ***Streptococcus*** pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti-PsaA antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant PsaA (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti-PsaA IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured as percent reduction in CFU counts compared to those of uninhibited controls). Pnc adherence was dependent on capsular phenotype (no or low adherence for opaque strains). With an inoculum of 104 to 105 bacteria/well, the mean +- standard deviation count in controls was 163 +- 32 CFU/well for transparent strains. Low adherence was observed for a PsaA-minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a dose-response fashion with a range of 98 to 8%, depending on the serum anti-PsaA antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels. Absorption of sera with a PsaA-minus mutant did not result in a significant decrease ($P > 0.05$) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by lipidated rPsaA at 2.5 mug/ml. Our data support the argument that PsaA is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to PsaA vaccination.

L5 ANSWER 8 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 2004:28184 BIOSIS
DN PREV200400029304
TI Analysis of recombinant acylated pneumococcal surface adhesin A of ***Streptococcus*** pneumoniae by mass spectrometry.
AU De, Barun K.; Woolfitt, Adrian R. [Reprint Author]; Barr, John R.; Daneshvar, Maryam I.; Sampson, Jacquelyn S.; Ades, Edwin W.; ***Carlone, George M.***
CS Division of Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA
awoolfitt@cdc.gov
SO Archives of Biochemistry and Biophysics, (November 15 2003) Vol. 419, No. 2, pp. 147-157. print.
ISSN: 0003-9861 (ISSN print).
DT Article
LA English
ED Entered STN: 31 Dec 2003
Last Updated on STN: 31 Dec 2003
AB ***Streptococcus*** pneumoniae pneumococcal surface adhesin A (PsaA) is a species-common, immunogenic surface lipoprotein. In this study, the psaA gene was expressed as a nonfusion acylated protein in an Escherichia coli expression system. Yields of pure recombinant PsaA (rPsaA) were 8-10 mg/liter of fermentation culture. Analysis of rPsaA tryptic digests by HPLC-electrospray mass spectrometry (MS) confirmed 98% of the expected protein sequence. GC/MS data demonstrated very similar acylation of native and rPsaA by C12:0-C22:0 fatty acids, with C16 and C18 predominating. Negative ion electrospray MS/MS analysis of the rPsaA lipid anchor released by Pronase-E confirmed that the structure was based on an N-terminal palmitoylcysteine (Pam3Cys). Electrospray MS heterogeneity analysis of intact rPsaA indicated that all of the observed heterogeneity could be accounted for by the fatty acid distributions. The availability of well-characterized rPsaA will facilitate the continued research and development of protein-based vaccines for the prevention of pneumococcal disease.

L5 ANSWER 9 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:906265 CAPLUS
DN 138:3662
TI M protein-derived peptide epitopes for diagnosis and treatment of infection by various serotypes of ***Streptococcus*** group A
IN Beall, Bernard W.; ***Carlone, George M.*** ; Sampson, Jacquelyn S.; Ades, Edwin W.
PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, Centers for Disease Control and Prevention, Technology Transfer Office, USA
SO PCT Int. Appl., 108 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002094851	A2	20021128	WO 2002-US15909	20020520
WO 2002094851	A3	20031030		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,

BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 2001-291835P P 20010518

AB This invention, in one aspect, relates to synthetic immunoreactive peptides. These peptides are approx. 20-25 amino acids in length which are portions of the N termini of the M proteins of the most prevalent United States (U.S.) Group A ***Streptococcus*** (GAS) serotypes. At least some of the synthetic peptides can be recognized by M type-specific antibodies and are capable of eliciting functional opsonic antibodies and/or anti-attachment antibodies without eliciting tissue cross-reactive antibodies. In another aspect, it relates to compns. or vaccines comprising these synthetic serotype-specific peptides, including polypeptides and proteins. The invention may also be isolated antibodies which are raised in response to the peptides, compns. or vaccines. The invention further relates to kits for using the peptides, compns., or antibodies. In still further aspects, the invention also relates to methods for using the peptides, compns., vaccines, or antibodies and methods for tailoring vaccines.

L5 ANSWER 10 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:51509 CAPLUS

DN 136:117369

TI Multiple antigenic peptides induce protective immune response against ***Streptococcus*** pneumoniae

IN Ades, Edwin W.; Johnson, Scott E.; Jue, Danny L.; Sampson, Jacquelyn S.; ***Carlone, George M.***

PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA

SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2002004497	A2	20020117	WO 2001-US21626	20010710
WO 2002004497	A3	20010710		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2001071935	A5	20020121	AU 2001-71935	20010710
EP 1301530	A2	20030416	EP 2001-950993	20010710
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004502782	T2	20040129	JP 2002-509360	20010710
PRAI US 2000-613092	A2	20000710		
WO 2001-US21626	W	20010710		

AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with lipidated peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.

L5 ANSWER 11 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 6

AN 2002:303982 BIOSIS
DN PREV200200303982
TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein pneumococcal surface adhesin A.
AU Johnson, Scott E. [Reprint author]; Dykes, Janet K.; Jue, Danny L.; Sampson, Jaquelyn S.; ***Carlone, George M.*** ; Ades, Edwin W.
CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Respiratory Diseases Branch, National Center for Infectious Diseases, Atlanta, GA, 30333, USA
sjohnson@cdc.gov
SO Journal of Infectious Diseases, (15 February, 2002) Vol. 185, No. 4, pp. 489-496. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Pneumococcal surface adhesin A (PsaA), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti-PsaA monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as lipidated or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine the inhibitory effect of induced antibodies on carriage of pneumococcal serotypes 2,4, and 6B. Antibodies to each of the various peptides tested reduced carriage of the 3 serotypes. Reduction in carriage by nonlipidated multiantigenic peptide antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with lipidated (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. PsaA peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

L5 ANSWER 12 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 7
AN 2001:465413 BIOSIS
DN PREV200100465413
TI ***Streptococcus*** pneumoniae 37-kDa surface adhesin a protein.
AU Sampson, Jacquelyn S. [Inventor, Reprint author]; Russell, Harold [Inventor]; Tharpe, Jean A. [Inventor]; Ades, Edwin W. [Inventor]; ***Carlone, George M.*** [Inventor]
CS College Park, GA, USA
ASSIGNEE: The United States of America as represented by the Department of Health and Human Services
PI US 6217884 April 17, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 17, 2001) Vol. 1245, No. 3. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 3 Oct 2001
Last Updated on STN: 23 Feb 2002
AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides

of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the steps of contacting a sample suspected of containing ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

L5 ANSWER 13 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:731186 CAPLUS
DN 135:254100
TI Methods and compositions for the simultaneous detection of multiple analytes
IN Martinez, Joseph E.; ***Carlone, George M.***
PA Government of the United States of America, as Represented by the Secretary of the Department of Health and Human Services, USA
SO PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001073443	A2	20011004	WO 2001-US9576	20010326
	WO 2001073443	A3	20020530		
	WO 2001073443	C2	20021219		

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

	AU 2001049444	A5	20011008	AU 2001-49444	20010326
	US 2003027205	A1	20030206	US 2002-259907	20020927
PRAI	US 2000-192712P	P	20000328		
	WO 2001-US9576	W	20010326		

AB Methods and compns. comprising immunoassays for the detection of antigens and antibodies in a sample are described. In particular, the present invention provides assays that are useful for rapid and simultaneous detection of multiple different antigens and antibodies. In preferred embodiments, the assays include fluorescent labels of multiple wavelengths or intensities, which are used to label the antigens and antibodies directly and to label beads coated with mols. specific for the antigen or antibody. The detection of a fluorescence shift indicates the presence or identity of the antigen or antibody in the sample.

L5 ANSWER 14 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:535523 BIOSIS
DN PREV200100535523
TI Analysis of immunoreactivity to a ***Streptococcus*** equi subsp. zooepidemicus M-like protein to confirm an outbreak of poststreptococcal glomerulonephritis, and sequences of M-like proteins from isolates obtained from different host species.

AU Nicholson, Mary Lou; Ferdinand, LaReesa; Sampson, Jacquelyn S.; Benin, Andrea; Balter, Sharon; Wyton Lima Pinto, Sergio; Dowell, Scott F.; Facklam, Richard R.; ***Carlone, George M.*** ; Beall, Bernard [Reprint author]

CS Centers for Disease Control and Prevention, 1600 Clifton Rd., NE, Mailstop C02, Atlanta, GA, 30333, USA
BBeall@cdc.gov

SO Journal of Clinical Microbiology, (November, 2001) Vol. 38, No. 11, pp. 4126-4130. print.
CODEN: JCMIDW. ISSN: 0095-1137.

DT Article

LA English

OS Genbank-AF150748; Genbank-AF244521; Genbank-AF244522; Genbank-AF244523

ED Entered STN: 14 Nov 2001
Last Updated on STN: 25 Feb 2002

AB The etiologic agent of a large 1998 outbreak of poststreptococcal acute glomerulonephritis (PSGN) in Nova Serrana, Brazil, was found likely to be a specific strain of ***Streptococcus*** equi subsp. zooepidemicus from contaminated cheese (S. Balter et al., Lancet 355:1776-1780, 2000). In the present study, we used a serologic screen for a known surface-exposed virulence factor to confirm the epidemiologic findings. Using primers flanking a previously characterized M-like protein gene (J. F. Timoney et al., Infect. Immun. 63:1440-1445, 1995), we amplified and sequenced the M-like protein (designated Szp5058) gene and found it to be identical among four independent acute-phase PSGN patient isolates. Convalescent-phase sera from 33 of 44 patients in the PSGN outbreak were found to contain antibodies highly reactive to a purified Szp5058 fusion protein, compared with 1 of 17 control sera ($P < 0.0001$), suggesting that Szp5058 was expressed during infection and further implicating this strain as the cause of the PSGN outbreak. The predicted signal sequence and cell wall association motif of Szp5058 were highly conserved with the corresponding sequence from S. equi subsp. zooepidemicus SzpW60, while the predicted surface-exposed portions differed markedly between these two proteins. The 5' end of the szp5058 gene, including its variable region, was identical to the szp gene from another strain associated with a previous PSGN outbreak in England (M. Barham et al., Lancet i:945-948, 1983), and the corresponding szp sequence found from the Lancefield group C type strain isolated from a guinea pig. In addition, the hypervariable (HV) portion of szp5058 was identical to a previously published HV sequence from a horse isolate (J. A. Walker and J. F. Timoney, Am. J. Vet. Res. 59:1129-1133, 1998). Three other strains of S. equi subsp. zooepidemicus, including another strain previously associated with a PSGN outbreak, were each found to contain a distinct szp gene. Two of these szp genes had HV regions identical to szp regions from isolates recovered from different host species.

L5 ANSWER 15 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 2001:211859 BIOSIS

DN PREV200100211859

TI Evaluation of a medium (STGG) for transport and optimal recovery of ***Streptococcus*** pneumoniae from nasopharyngeal secretions collected during field studies.

AU O'Brien, Katherine L. [Reprint author]; Bronsdon, Melinda A.; Dagan, Ron; Yagupsky, Pablo; Janco, Jacob; Elliott, John; Whitney, Cynthia G.; Yang, Yong-Hong; Robinson, Lisa-Gaye E.; Schwartz, Benjamin; ***Carlone,*** ***George M.***

CS Center for American Indian and Alaskan Native Health, Johns Hopkins School of Hygiene and Public Health, 621 N. Washington St., Baltimore, MD, 21205, USA
klobrien@jhsph.edu

SO Journal of Clinical Microbiology, (March, 2001) Vol. 39, No. 3, pp. 1021-1024. print.
CODEN: JCMIDW. ISSN: 0095-1137.

DT Article
LA English
ED Entered STN: 2 May 2001
Last Updated on STN: 18 Feb 2002
AB Field studies of ***Streptococcus*** pneumoniae (pneumococci) nasopharyngeal (NP) colonization are hampered by the need to directly plate specimens in order to ensure isolate viability. A medium containing skim milk, tryptone, glucose, and glycerin (STGG) has been used to transport and store NP material, but its ability to preserve pneumococci has not been evaluated. Our objective was to qualitatively and semiquantitatively evaluate the ability of STGG to preserve pneumococci in NP secretions. Entwined duplicate calcium alginate NP swab samples were obtained from children. One swab was plated directly onto a gentamicin blood agar plate; the other was placed in STGG. Growth from the directly plated specimen was compared with growth from an STGG aliquot immediately cultured or stored at -70degreeC for 9 weeks, -20degreeC for 9 weeks, or 4degreeC for 5 days. Of 186 specimens, 96 (52%) were positive for pneumococci from the direct plating; 94 (98%) of these were positive from the fresh STGG specimen. Pneumococci were recovered from all 38 positive specimens frozen at -70degreeC, all 18 positive specimens frozen at -20degreeC, and 18 of 20 positive specimens stored at 4degreeC. Recovery of pneumococci after storage of NP material in STGG medium at -70degreeC is at least as good as that from direct plating. Storage at -20degreeC is also acceptable. Storage at 4degreeC for 5 days is not ideal.

L5 ANSWER 16 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:771489 CAPLUS
DN 136:384575
TI Randomized trial of the quantitative and functional antibody responses to a 7-valent pneumococcal conjugate vaccine and/or 23-valent polysaccharide vaccine among HIV-infected adults
AU Feikin, Daniel R.; Elie, Cheryl M.; Goetz, Matthew B.; Lennox, Jeffrey L.; ***Carlone, George M.*** ; Romero-Steiner, Sandra; Holder, Patricia F.; O'Brien, William A.; Whitney, Cynthia G.; Butler, Jay C.; Breiman, Robert F.
CS Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 3033, USA
SO Vaccine (2001), 20(3-4), 545-553
CODEN: VACCDE; ISSN: 0264-410X
PB Elsevier Science Ltd.
DT Journal
LA English
AB In a double-blinded, randomized trial, human immunodeficiency virus (HIV)-infected adults with .gtoreq.200 CD4 cells/.mu.l received placebo (PL), 7-valent conjugate, or 23-valent pneumococcal polysaccharide (PS) vaccine in one of the following two-dose combinations given 8 wk apart: conjugate-conjugate, conjugate-polysaccharide, placebo-polysaccharide, placebo-placebo. A total of 67 persons completed the study. Neither significant increases in HIV viral load nor severe adverse reactions occurred in any group. After controlling for confounders, when compared with persons receiving placebo-polysaccharide, persons receiving conjugate-conjugate and conjugate-polysaccharide had higher antibody concns. (serotypes 4, 6B, 9V and serotype 23F, resp.) and opsonophagocytic titers (functional antibody assay, serotypes 9V, 23F and serotypes 4, 6B, 9V, resp.) after the second dose. The second dose with either conjugate or polysaccharide following the first conjugate dose, however, produced no further increase in immune responses.
RE.CNT 33 THERE ARE 33 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 17 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2001:293476 BIOSIS

DN PREV200100293476
TI Effect of a seven valent pneumococcal conjugate vaccine on nasopharyngeal (NP) carriage among native American infants.
AU O'Brien, Katherine L. [Reprint author]; Bronsdon, Melinda; ***Carlone,*** *** George M.*** ; Facklam, Richard R.; Schwartz, Ben; Reid, Raymond R.; Santosham, Mathuram
CS International Health, Johns Hopkins University, Baltimore, MD, USA
SO Pediatric Research, (April, 2001) Vol. 49, No. 4 Part 2, pp. 256A. print.
Meeting Info.: Annual Meeting of the Pediatric Academic Societies. Baltimore, Maryland, USA. April 28-May 01, 2001.
CODEN: PEREBL. ISSN: 0031-3998.
DT Conference; (Meeting)
Conference; Abstract; (Meeting Abstract)
LA English
ED Entered STN: 20 Jun 2001
Last Updated on STN: 19 Feb 2002

L5 ANSWER 18 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:900909 CAPLUS
DN 134:55496
TI Methods and compositions for opsonophagocytic assays
IN Martinez, Joseph E.; ***Carlone, George M.*** ; Hickey, Michael H.
PA The Government of the United States of America, Represented by the Secretary, Department of Health and Human Services, USA; Flow Applications, Inc.
SO PCT Int. Appl., 51 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000077518	A2	20001221	WO 2000-US15858	20000609
WO 2000077518	A3	20020530		
WO 2000077518	C2	20020829		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 2000054768	A5	20010102	AU 2000-54768	20000609
AU 768051	B2	20031127		
EP 1226440	A2	20020731	EP 2000-939724	20000609
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
PRAI US 1999-138911P	P	19990611		
WO 2000-US15858	W	20000609		

AB Methods and compns. comprising immunoassays for the detection of functional antibodies and the anal. of vaccine efficacy are described. In particular, the present invention provides opsonophagocytic assays. The assays are useful for the rapid and simultaneous detection of multiple different functional antibodies. In preferred embodiments, the assays include fluorescent labels of multiple colors and/or intensities.

L5 ANSWER 19 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:900849 CAPLUS
DN 134:52239
TI Detection of ***Streptococcus*** pneumoniae and immunization against its infection

IN Sampson, Jacqueline S.; Morrison, Katherine E.; Crook, Jennifer; Ades, Edwin E.; ***Carlone, George M.***
PA Government of the United States of America as Represented by the Secretary, of the Department of Health and Human Services, USA
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000077254	A1	20001221	WO 1999-US13421	19990614
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
AU 9946832	A1	20010102	AU 1999-46832	19990614
PRAI US 1999-138894P	P	19990611		
WO 1999-US13421	W	19990614		

AB The present invention relates to oligonucleotide primers, and methods of diagnosis using the primers, wherein particular primer pairs prime the universal amplification of an amplicon specific for ***Streptococcus*** pneumoniae from all 90 known serotypes. The amplicon includes at least a portion of the psaA gene of ***Streptococcus*** pneumoniae. In the methods, amplification of a biol. sample using the primer pairs of the invention provide an amplicon only if the sample contains a serotype of ***Streptococcus*** pneumoniae. The invention further relates to an isolated nucleic acid including a nucleic acid amplicon obtained using a pair of oligonucleotide primers of the invention. In still a further aspect, the invention discloses a polypeptide including an amino acid sequence encoded by a nucleic acid amplicon obtained using oligonucleotide primers. Addnl., methods of stimulating an immune response against a serotype of ***Streptococcus*** pneumoniae in a mammal include either administering a polypeptide encoded by a nucleic acid amplicon obtained using the pair of oligonucleotide primers of the invention, or administering a nucleic acid contg. a nucleic acid amplicon obtained using the pair of oligonucleotide primers of the invention.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:900482 CAPLUS
DN 134:46755
TI Pneumococcal surface protein combination vaccine
IN Huebner, Robert C.; Sampson, Jacquelyn S.; ***Carlone, George M.*** ; Ades, Edwin; Briles, David E.
PA Uab Research Foundation, USA; Aventis Pasteur; Centers for Disease Control and Prevention
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2000076541	A1	20001221	WO 2000-US40176	20000609
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,				

ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW,
AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

BR 2000011478	A	20020319	BR 2000-11478	20000609	
EP 1189632	A1	20020327	EP 2000-947640	20000609	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO					
JP 2003519089	T2	20030617	JP 2001-502874	20000609	
PRAI US 1999-138422P	P	19990610			
US 2000-587833	A	20000606			
WO 2000-US40176	W	20000609			

AB The present invention relates to synergistic immunogenic combinations contg. two or more pneumococcal surface proteins, including PspA and/or PspC and/or PsaA, advantageously, PspA and PsaA. Also provided are methods of intranasal administration of such immunogenic combinations to reduce nasopharyngeal carriage of pneumococci and methods of use of such immunogenic combinations in the prevention and treatment of S. pneumoniae infection.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 21 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2001:160684 CAPLUS
DN 135:367481
TI Analysis of immunoreactivity to a ***Streptococcus*** equi subsp. zooepidemicus M-like protein to confirm an outbreak of poststreptococcal glomerulonephritis, and sequences of M-like proteins from isolates obtained from different host species
AU Nicholson, Mary Lou; Ferdinand, LaReesa; Sampson, Jacquelyn S.; Benin, Andrea; Balter, Sharon; Pinto, Sergio Wyton Lima; Dowell, Scott F.; Facklam, Richard R.; ***Carlone, George M.*** ; Beall, Bernard
CS Respiratory Diseases Branch, Centers for Disease Control and Prevention, Atlanta, GA, 30333, USA
SO Journal of Clinical Microbiology (2000), 38(11), 4126-4130
CODEN: JCMIDW; ISSN: 0095-1137
PB American Society for Microbiology
DT Journal
LA English
AB The etiol. agent of a large 1998 outbreak of poststreptococcal acute glomerulonephritis (PSGN) in Nova Serrana, Brazil, was found likely to be a specific strain of ***Streptococcus*** equi subsp. zooepidemicus from contaminated cheese (S. Balter et al., Lancet 355:1776-1780, 2000). In the present study, we used a serol. screen for a known surface-exposed virulence factor to confirm the epidemiol. findings. Using primers flanking a previously characterized M-like protein gene (J. F. Timoney et al., Infect. Immun. 63:1440-1445, 1995), we amplified and sequenced the M-like protein (designated Szp5058) gene and found it to be identical among four independent acute-phase PSGN patient isolates. Convalescent-phase sera from 33 of 44 patients in the PSGN outbreak were found to contain antibodies highly reactive to a purified Szp5058 fusion protein, compared with 1 of 17 control sera ($P < 0.0001$), suggesting that Szp5058 was expressed during infection and further implicating this strain as the cause of the PSGN outbreak. The predicted signal sequence and cell wall assocn. motif of Szp5058 were highly conserved with the corresponding sequence from S. equi subsp. zooepidemicus SzpW60, while the predicted surface-exposed portions differed markedly between these two proteins. The 5' end of the szp5058 gene, including its variable region, was identical to the szp gene from another strain assocd. with a previous PSGN outbreak in England (M. Barham et al., Lancet i:945-948, 1983), and the

corresponding szp sequence found from the Lancefield group C type strain isolated from a guinea pig. In addn., the hypervariable (HV) portion of szp5058 was identical to a previously published HV sequence from a horse isolate (J. A. Walker and J. F. Timoney, Am. J. Vet. Res. 59:1129-1133, 1998). Three other strains of S. equi subsp. zooepidemicus, including another strain previously assocd. with a PSGN outbreak, were each found to contain a distinct szp gene. Two of these szp genes had HV regions identical to szp regions from isolates recovered from different host species.

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 22 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:479530 CAPLUS
DN 134:84756
TI An analytical model applied to a multicenter pneumococcal enzyme-linked immunosorbent assay study
AU Plikaytis, Brian D.; Goldblatt, David; Frasch, Carl E.; Blondeau, Christine; Bybel, Michael J.; Giebink, G. Scott; Jonsdottir, Ingileif; Kayhty, Helena; Konradsen, Helle Bossen; Madore, Dace V.; Nahm, Moon H.; Schulman, Cheryl A.; Holder, Patricia F.; Lezhava, Tamar; Elie, Cheryl M.; ***Carlone, George M.***
CS Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30333, USA
SO Journal of Clinical Microbiology (2000), 38(6), 2043-2050
CODEN: JCMIDW; ISSN: 0095-1137
PB American Society for Microbiology
DT Journal
LA English
AB Pneumococcal conjugate vaccines will eventually be licensed after favorable results from phase III efficacy trials. After licensure of a conjugate vaccine for invasive pneumococcal disease in infants, new conjugate vaccines will likely be licensed primarily on the basis of immunogenicity data rather than clin. efficacy. Anal. methods must therefore be developed, evaluated, and validated to compare immunogenicity results accurately within and between labs. for different vaccines. At present no anal. technique is uniformly accepted and used in vaccine evaluation studies to det. the acceptable level of agreement between a lab. result and the assigned value for a given serum sample. This multicenter study describes the magnitude of agreement among 12 labs. quantifying an identical series of 48 pneumococcal serum specimens from 24 individuals (quality-control sera) by a consensus IgG ELISA developed for this study. After provisional or trial antibody concns. were assigned to the quality-control serum samples for this study, four methods for comparison of a series of lab.-detd. values with the assigned concns. were evaluated. The percent error between assigned values and lab.-detd. concns. proved to be the most informative of the four methods. We present guidelines that a lab. may follow to analyze a series of quality-control sera to det. if it can reproduce the assigned antibody concns. within an acceptable level of tolerance. While this study focused on a pneumococcal IgG ELISA, the methods that we describe are easily generalizable to other immunol. assays.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 8
AN 2000:471960 BIOSIS
DN PREV200000471960
TI Natural development of antibodies to pneumococcal surface protein A, pneumococcal surface adhesin A, and pneumolysin in relation to pneumococcal carriage and acute otitis media.

AU Rapola, Satu [Reprint author]; Jantti, Virva; Haikala, Raili; Syrjanen, Ritva; ***Carlone, George M.*** ; Sampson, Jacquelyn S.; Briles, David E.; Paton, James C.; Takala, Aino K.; Kilpi, Terhi M.; Kayhty, Helena
CS Dept. of Vaccines, National Public Health Institute, Mannerheimintie 166, 00300, Helsinki, Finland
SO Journal of Infectious Diseases, (October, 2000) Vol. 182, No. 4, pp. 1146-1152. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 1 Nov 2000
Last Updated on STN: 10 Jan 2002
AB Pneumococcal surface protein A (PspA), pneumococcal surface adhesin A (PsaA), and pneumolysin (Ply) are common to virtually all ***Streptococcus*** pneumoniae isolates. They are immunogenic and protective against pneumococcal challenge in animals and are the major candidates for a protein-based pneumococcal vaccine for humans. However, little is known of the natural development of antibodies to these proteins in humans. The objective of this study was to evaluate the natural development of antibodies to PspA, PsaA, and Ply in relation to pneumococcal infection and carriage in young children. Serum antibodies to these proteins were measured by EIA in children at ages 6, 12, 18, and 24 months and in their mothers. All age groups were capable of producing antibodies to the 3 proteins. The antibody concentrations increased with age and were strongly associated with pneumococcal exposure, whether by carriage or infection (acute otitis media).

L5 ANSWER 24 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 9
AN 2000:110102 BIOSIS
DN PREV200000110102
TI Intranasal immunization of mice with a mixture of the pneumococcal proteins PsaA and PspA is highly protective against nasopharyngeal carriage of ***Streptococcus*** pneumoniae.
AU Briles, David E. [Reprint author]; Ades, Eddie; Paton, James C.; Sampson, Jacquelyn S.; ***Carlone, George M.*** ; Huebner, Robert C.; Virolainen, Anni; Swiatlo, Edwin; Hollingshead, Susan K.
CS Department of Microbiology, UAB, 845 19th St. South, 658 Bevill Building, Birmingham, AL, 35294, USA
SO Infection and Immunity, (Feb., 2000) Vol. 68, No. 2, pp. 796-800. print.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 22 Mar 2000
Last Updated on STN: 3 Jan 2002
AB Acquisition of pneumococci is generally from carriers rather than from infected individuals. Therefore, to induce herd immunity against ***Streptococcus*** pneumoniae it will be necessary to elicit protection against carriage. Capsular polysaccharide-protein conjugates, PspA, and PsaA are known to elicit some protection against nasopharyngeal carriage of pneumococci but do not always completely eliminate carriage. In this study, we observed that PsaA elicited better protection than did PspA against carriage. Pneumolysin elicited no protection against carriage. Immunization with a mixture of PsaA and PspA elicited the best protection against carriage. These results indicate that PspA and PsaA may be useful for the elicitation of herd immunity in humans. As PspA and pneumolysin are known to elicit immunity to bacteremia and pneumonia, their inclusion in a mucosal vaccine may enable such a vaccine to prevent invasive disease as well as carriage.

L5 ANSWER 25 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 10
AN 2000:124306 BIOSIS

DN PREV200000124306
TI Confirmation of psaA in all 90 serotypes of ***Streptococcus*** pneumoniae by PCR and potential of this assay for identification and diagnosis.
AU Morrison, Katherine E.; Lake, Derrick; Crook, Jennifer; ***Carlone,*** *** George M.*** ; Ades, Edwin; Facklam, Richard; Sampson, Jacquelyn S. [Reprint author]
CS Centers for Disease Control and Prevention, 1600 Clifton Rd., NE, Atlanta, GA, 30333, USA
SO Journal of Clinical Microbiology, (Jan., 2000) Vol. 38, No. 1, pp. 434-437. print.
CODEN: JCMIDW. ISSN: 0095-1137.
DT Article
LA English
ED Entered STN: 5 Apr 2000
Last Updated on STN: 3 Jan 2002
AB The gene encoding the pneumococcal surface adhesin A (PsaA) protein, psaA, was confirmed in all ***Streptococcus*** pneumoniae serotypes by a newly developed PCR (psaA PCR) assay. Eighty-nine of the 90 serotypes amplified produced an 838-bp fragment; the exception was a serotype 16F strain acquired from the American Type Culture Collection (ATCC). Analysis of 20 additional 16F strains from the United States and Brazil showed that the gene was amplified in all 16F strains, implying that the serotype 16F ATCC strain must be a variant. The specificity of the assay was verified by the lack of signal from analysis of heterologous bacterial species (n = 30) and genera (n = 14), including viridans group ***streptococci*** . The potential of the assay for clinical application was shown by its ability to detect pneumococci in culture-positive nasopharyngeal specimens. Demonstration of psaA in all 90 serotypes and lack of amplification of heterologous organisms suggest that this assay could be a useful tool for detection of pneumococci and diagnosis of disease.

L5 ANSWER 26 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:577027 CAPLUS
DN 131:198616
TI Epitope peptides immunogenic against ***Streptococcus*** pneumoniae and their use in vaccines
IN ***Carlone, George M.*** ; Ades, Edwin W.; Sampson, Jacquelyn S.; Tharpe, Jean A.; Zeiler, Joan Louise; Westerink, Maria Anna Julia
PA The Government of the United States of America, Represented by the Secretary of the Department of Health and Human Services, USA
SO PCT Int. Appl., 59 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9945121	A1	19990910	WO 1999-US4326	19990226
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2326408	AA	19990910	CA 1999-2326408	19990226
AU 9927950	A1	19990920	AU 1999-27950	19990226
AU 758764	B2	20030327		
BR 9908476	A	20001205	BR 1999-8476	19990226

EP 1060249 A1 20001220 EP 1999-908543 19990226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
PRAI US 1998-76565P P 19980302
WO 1999-US4326 W 19990226
AB Peptides are provided which immunospecifically bind to monoclonal antibodies specific for the 37-kDa pneumococcal surface adhesion A protein (PsaA) of ***Streptococcus*** pneumoniae of the invention, and that are immunogenic against ***Streptococcus*** pneumoniae infection. Also provided are vaccines comprising such immunogenic polypeptides, and methods of conferring protective immunity against ***Streptococcus*** pneumoniae infection by administering therapeutic compns. comprising the immunogenic peptides of the invention. Also provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, and methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject. In addn. a phage display method of identifying the sequence of a peptide potentially capable of eliciting protective immunity against a pathogenic microorganism is provided.
RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 27 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511257 CAPLUS
DN 131:154473
TI ***Streptococcus*** pneumoniae lipidated PsaA protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection
IN Ades, Edwin W.; ***Carlone, George M.*** ; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 9940200	A1	19990812	WO 1999-US379	19990114
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2319404	AA	19990812	CA 1999-2319404	19990114
AU 9923131	A1	19990823	AU 1999-23131	19990114
EP 1053329	A1	20001122	EP 1999-903011	19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
BR 9909097	A	20001205	BR 1999-9097	19990114
JP 2002505083	T2	20020219	JP 2000-530614	19990114

PRAI US 1998-17782 A 19980203
WO 1999-US379 W 19990114
AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of ***Streptococcus*** pneumoniae gene psaA pneumococcal surface protein A (PsaA, previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector

for recombinant prodn. of lipidated PsaA proteins. The invention further provides purifn. methods used to obtain the recombinant PsaA proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic lipidated PsaA proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of lipidated PsaA proteins was included in the invention.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 28 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 11
AN 1999:262686 BIOSIS
DN PREV199900262686
TI Relationship between cell surface carbohydrates and intrastrain variation on opsonophagocytosis of ***Streptococcus*** pneumoniae.
AU Kim, Jean O.; Romero-Steiner, Sandra; Skov Sorensen, Uffe B.; Blom, Jens; Carvalho, M.; Barnard, S.; ***Carlone, George*** ; Weiser, Jeffrey N. [Reprint author]
CS University of Pennsylvania, 301B Johnson Pavilion, Philadelphia, PA, 19104-6076, USA
SO Infection and Immunity, (May, 1999) Vol. 67, No. 5, pp. 2327-2333. print. CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 15 Jul 1999
Last Updated on STN: 15 Jul 1999
AB ***Streptococcus*** pneumoniae undergoes spontaneous phase variation between a transparent and an opaque colony phenotype, the latter being more virulent in a murine model of sepsis. Opaque pneumococci have previously been shown to express lower amounts of C polysaccharide (cell wall teichoic acid) and in this study were shown to have a higher content of capsular polysaccharide by immunoelectron microscopy. This report then examined the relationship between expression of these two cell surface carbohydrate structures and their relative contribution to the increased virulence of opaque variants. Comparison of genetically related strains showed that the differential content of capsular polysaccharide did not affect the amount of teichoic acid as measured by a capture enzyme-linked immunosorbent assay (ELISA). In contrast, when the teichoic acid structure was altered by replacing choline in the growth medium with structural analogs, the quantity of capsular polysaccharide as measured by a capture ELISA was decreased, demonstrating a linkage in the expression of the two surface carbohydrate structures. A standardized assay was used to assess the relative contribution of cell surface carbohydrates to opsonophagocytosis. The opaque variants required 1.2- to 30-fold more immune human serum to achieve 50% opsonophagocytic killing than did related transparent variants (types 6B and 9V). The opsonophagocytic titer was proportional to the quantity of capsular polysaccharide rather than teichoic acid. The major factor in binding of the opsonin, C-reactive protein (CRP), was also the amount of capsular polysaccharide rather than the teichoic acid ligand. Only for the transparent variant (type 6B), which bound more CRP, was there enhanced opsonophagocytic killing in the presence of this serum protein. Increased expression of capsular polysaccharide, therefore, appeared to be the major factor in the decreased opsonophagocytic killing of opaque pneumococci.

L5 ANSWER 29 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 12
AN 1999:359480 BIOSIS
DN PREV199900359480
TI A flow cytometric opsonophagocytic assay for measurement of functional antibodies elicited after vaccination with the 23-valent pneumococcal polysaccharide vaccine.

AU Martinez, Joseph E.; Romero-Steiner, Sandra [Reprint author]; Pilishvili, Tamara; Barnard, Suzanne; Schinsky, Joseph; Goldblatt, David; ***Carlone, George M.***

CS Respiratory Diseases Branch, Immunology Section, Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, Atlanta, GA, 30333, USA

SO Clinical and Diagnostic Laboratory Immunology, (July, 1999) Vol. 6, No. 4, pp. 581-586. print.
ISSN: 1071-412X.

DT Article

LA English

ED Entered STN: 2 Sep 1999
Last Updated on STN: 2 Sep 1999

AB Opsonophagocytosis is the primary mechanism for clearance of pneumococci from the host, and the measurement of opsonophagocytic antibodies appears to correlate with vaccine-induced protection. We developed a semiautomated flow cytometric opsonophagocytosis assay using HL-60 granulocytes as effector cells and nonviable 5,6-carboxyfluorescein, succinimidyl ester-labeled ***Streptococcus*** pneumoniae (serotypes 4, 6B, 9V, 14, 18C, 19F, and 23F) as bacterial targets. The flow cytometric opsonophagocytosis assay was highly reproducible (for 87% of repetitive assays the titers were within 1 dilution of the median titer) and serotype specific, with gtoreq97% inhibition of opsonophagocytic titer by addition of homologous serotype-specific polysaccharide. In general, opsonophagocytic titers were not significantly inhibited by the presence of either heterologous pneumococcal polysaccharide or penicillin in the serum. The flow cytometric assay could reproducibly measure functional antibody activity in prevaccination (n = 28) and postvaccination (n = 36) serum specimens from healthy adult volunteers vaccinated with the 23-valent pneumococcal polysaccharide vaccine. When compared with a standardized manual viable opsonophagocytic assay, a high correlation (r = 0.89; P ltoreq 0.01) was found between the two assays for the seven serotypes tested. The flow cytometric assay is rapid (apprx4 h) with high throughput (apprx50 serum samples per day per technician) and provides a reproducible measurement of serotype-specific functional antibodies, making it a highly suitable assay for the evaluation of the immune responses elicited by pneumococcal vaccines.

L5 ANSWER 30 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

AN 1999:400770 BIOSIS

DN PREV199900400770

TI Reduction in functional antibody activity against ***Streptococcus*** pneumoniae in vaccinated elderly individuals highly correlates with decreased IgG antibody avidity.

AU Romero-Steiner, Sandra; Musher, Daniel M.; Cetron, Marty S.; Pais, Lorna B.; Groover, Jean E.; Fiore, Anthony E.; Plikaytis, Brian D.; ***Carlone, George M.*** [Reprint author]

CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, National Center for Infectious Diseases, Building 1, Room 1260, Atlanta, GA, 30333, USA

SO Clinical Infectious Diseases, (Aug., 1999) Vol. 29, No. 2, pp. 281-288. print.
CODEN: CIDIEL. ISSN: 1058-4838.

DT Article

LA English

ED Entered STN: 8 Oct 1999
Last Updated on STN: 8 Oct 1999

AB The pneumococcal polysaccharide vaccine is recommended as a means of preventing invasive disease in the elderly. We compared responses to the 23-valent polysaccharide vaccine in 46 previously unvaccinated, healthy, institutionalized elderly persons (mean age, 85.5 years) with those in 12 healthy younger adults (mean age, 37 years) by measuring prevaccination and postvaccination serum IgG antibody concentrations (by ELISA),

functional antibody activity (by opsonophagocytosis), IgG antibody avidity, and passive protection in mice. Postvaccination IgG antibody concentrations for two serotypes (6B and 19F) of the five studied (4, 6B, 14, 19F, and 23F) were significantly lower in elderly than in younger adults; however, opsonophagocytic activity was significantly reduced for all serotypes in the elderly. Sera with reduced opsonophagocytic activity (titer, <64) correlated with low IgG antibody avidity and protected mice poorly against pneumococcal challenge. In elderly persons receiving polysaccharide vaccination, there was a significant reduction in the functionality of postvaccination antibodies, and this appeared to increase with advanced age.

L5 ANSWER 31 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:328764 BIOSIS
DN PREV199900328764
TI Correlation of opsonophagocytosis and passive protection assays using human anticapsular antibodies in an infant mouse model of bacteremia for ***Streptococcus*** pneumoniae.
AU Johnson, Scott E. [Reprint author]; Rubin, Lorry; Romero-Steiner, Sandra; Dykes, Janet K.; Pais, Lorna B.; Rizvi, Atquia; Ades, Edwin; ***Carlone, George M.***
CS CDC, Atlanta, GA, 30333, USA
SO Journal of Infectious Diseases, (July, 1999) Vol. 180, No. 1, pp. 133-140. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article
LA English
ED Entered STN: 24 Aug 1999
Last Updated on STN: 24 Aug 1999
AB An infant mouse assay system for assessment of protective concentrations of human serum pneumococcal anticapsular antibodies is described. Passive immunization of anticapsular antibodies was evaluated for protection of infant mice challenged with ***Streptococcus*** pneumoniae serotypes 1, 4, 5, 6B, 18C, and 23A, with bacteremia as an end point. Protection was defined as no detectable bacteremia in 70% of mice 48 h after challenge. Type-specific anticapsular concentrations required for protection varied with serotype (ltoreq0.05 to >0.4 mug/mL). Across serotypes, there was no significant correlation between human IgG concentration in mouse serum and protection from bacteremia or between IgG concentration and opsonophagocytic titer. Significant correlation ($r = .84$, $P < .001$) was observed between opsonophagocytic titer of human IgG antibody in mouse sera and protection from bacteremia. Thus, protective concentrations of anticapsular antibodies against bacteremia are serotype dependent. Opsonophagocytosis is a better predictor of in vivo protective capacity of pneumococcal anticapsular antibodies than are ELISA IgG antibody concentrations.

L5 ANSWER 32 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1999:530564 BIOSIS
DN PREV199900530564
TI Pneumococcal vaccines: History, current status, and future directions.
AU Butler, Jay C. [Reprint author]; Shapiro, Eugene D.; ***Carlone, George M.***
CS Arctic Investigations Program, Centers for Disease Control and Prevention, 4055 Tudor Centre Drive, Anchorage, AK, 99508-5902, USA
SO American Journal of Medicine, (July 26, 1999) Vol. 107, No. 1 PART A, pp. 69S-76S. print.
CODEN: AJMEAZ. ISSN: 0002-9343.
DT Article
General Review; (Literature Review)
LA English
ED Entered STN: 10 Dec 1999
Last Updated on STN: 10 Dec 1999

AB ***Streptococcus*** pneumoniae is the leading cause of community-acquired pneumonia and bacterial meningitis. Although effective antimicrobial drugs have reduced case fatality, the pneumococcus remains a leading global cause of morbidity and mortality. Therefore, prevention of infection by vaccination with the pneumococcal polysaccharide vaccine is recommended for persons at high risk for serious pneumococcal disease, such as the elderly and individuals with certain underlying medical conditions. Pneumococcal polysaccharide vaccines are safe and effective for the prevention of invasive infection among immunocompetent children and adults but are not immunogenic in infants. Conjugation of pneumococcal polysaccharides to a carrier protein improves immune responses among infants, and conjugate vaccines are currently being evaluated in large efficacy trials. The role of pneumococcal conjugate vaccines in adults has not been determined. Pneumococcal vaccines directed against pneumococcal proteins and DNA vaccines that induce anti-pneumococcal antibodies have been evaluated in animal models and may someday provide complementary or alternative methods for preventing pneumococcal infection. Improved utilization of the pneumococcal polysaccharide vaccine and continued development of improved vaccines are essential, and the emergence of drug-resistant strains of S. pneumoniae highlights the importance of preventing pneumococcal infections by vaccination.

L5 ANSWER 33 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 13
AN 1999:21723 CAPLUS
DN 130:77112
TI ***Streptococcus*** pneumoniae 37-kDa surface adhesin A protein and its gene
IN Sampson, Jacquelyn S.; Russell, Harold; Tharpe, Jean A.; Ades, Edwin W.; ***Carlone, George M.***
PA United States Dept. of Health and Human Services, USA
SO U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 222,179, abandoned.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5854416	A	19981229	US 1996-715131	19960917
	US 5422427	A	19950606	US 1991-791377	19911114
	US 6312944	B1	20011106	US 1994-356106	19941215
	US 6217884	B1	20010417	US 1998-221753	19981228
	US 2003105307	A1	20030605	US 2001-754809	20010103
	US 2003204074	A1	20031030	US 2003-455109	20030604
PRAI	US 1991-791377	A2	19911114		
	US 1994-222179	B2	19940404		
	US 1996-715131	A3	19960917		
	US 1998-221753	A3	19981228		
	US 2001-754809	A3	20010103		

AB The invention provides a nucleic acid encoding the 37-kDa protein from ***Streptococcus*** pneumoniae. Also provided are isolated nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. The invention also provides purified polypeptides encoded by the nucleic acid encoding the 37-kDa protein from and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are antibodies which selectively binds the polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Also provided are vaccines comprising immunogenic polypeptides encoded by the nucleic acid encoding the 37-kDa protein and the nucleic acids comprising a unique fragment of at least 10 nucleotides of the 37-kDa protein. Further provided is a method of detecting the presence of ***Streptococcus*** pneumoniae in a sample comprising the

steps of contacting a sample suspected of contg. ***Streptococcus*** pneumoniae with nucleic acid primers capable of hybridizing to a nucleic acid comprising a portion of the nucleic acid encoding the 37-kDa protein, amplifying the nucleic acid and detecting the presence of an amplification product, the presence of the amplification product indicating the presence of ***Streptococcus*** pneumoniae in the sample. Further provided are methods of detecting the presence of ***Streptococcus*** pneumoniae in a sample using antibodies or antigens, methods of preventing and treating ***Streptococcus*** pneumoniae infection in a subject.

RE.CNT 22 THERE ARE 22 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 34 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1998:488310 BIOSIS
DN PREV199800488310
TI Outbreak of pneumonia in a long-term care facility: Antecedent human parainfluenza virus 1 infection may predispose to bacterial pneumonia.
AU Fiore, Anthony E. [Reprint author]; Iverson, Chris; Messmer, Trudy; Erdman, Dean; Lett, Susan M.; Talkington, Deborah F.; Anderson, Larry J.; Fields, Barry; ***Carlone, George M.*** ; Breiman, Robert F.; Cetron, Martin S.
CS Epidemiol. Program Office, Cent. Dis. Control and Prevention, 1600 Clifton Rd., NE, Altanta, GA 30333, USA
SO Journal of the American Geriatrics Society, (Sept., 1998) Vol. 46, No. 9, pp. 1112-1117. print.
CODEN: JAGSAF. ISSN: 0002-8614.
DT Article
LA English
ED Entered STN: 5 Nov 1998
Last Updated on STN: 5 Nov 1998
AB OBJECTIVES: To determine the causes of an outbreak of lobar pneumonia. DESIGN: Matched (1:2) case-control study. SETTING: A 70-bed chronic care facility for older people. PARTICIPANTS: Residents of the facility. RESULTS: Ten residents developed pneumonia over a 10-day period. Two residents died. One case-patient had ***Streptococcus*** pneumoniae bacteremia; another had polymerase chain reaction evidence of S. pneumoniae infection. No other etiologic agent was identified. Only four of 10 case-patients had received routine diagnostic cultures of blood or sputum before the administration of antibiotics. Symptoms of upper respiratory illness (URI) among residents before the pneumonia outbreak corresponded with elevation of antibodies to human parainfluenza virus 1 (HPIV1). In a matched case-control study, six of 10 case-patients, compared with five of 20 controls, had symptoms of URI during the preceding month (matched odds ratio (MOR) = 4.5, 95% CI = 0.833). Nine case-patients had serum available, and five of these had both serologic evidence of recent HPIV1 infection and recent URI, compared with two of 18 controls (MOR = 9.0, 95% CI = 1.2-208). Only three residents had documentation of pneumococcal vaccination. CONCLUSIONS: Noninfluenza viral infections may play a role in the pathogenesis of some bacterial pneumonias. S. pneumoniae was the cause of at least two pneumonias; lack of preantibiotic cultures may have interfered with isolation of S. pneumoniae in others. Recent HPIV1 infection was epidemiologically linked to subsequently developing pneumonia. Spread of HPIV1 in the facility may have contributed to increased susceptibility to S. pneumoniae and, potentially, to other bacterial pathogens.

L5 ANSWER 35 OF 39 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:234181 CAPLUS
DN 128:307320
TI Immunoreactivity of five monoclonal antibodies against the 37-kilodalton common cell wall protein (PsaA) of ***Streptococcus*** pneumoniae
AU Crook, Jennifer; Tharpe, Jean A.; Johnson, Scott E.; Williams, Derrick B.; Stinson, Annie R.; Facklam, Richard R.; Ades, Edwin W.; ***Carlone,***

*** George M.*** ; Sampson, Jacquelyn S.
CS Division of Bacterial and Mycotic Diseases, National Center for Infectious Diseases, Centers for Disease Control and Prevention, U.S. Department of Health and Human Services, Atlanta, GA, 30333, USA
SO Clinical and Diagnostic Laboratory Immunology (1998), 5(2), 205-210
CODEN: CDIMEN; ISSN: 1071-412X
PB American Society for Microbiology
DT Journal
LA English
AB Five monoclonal antibodies (MAbs) were produced against the ***Streptococcus*** pneumoniae pneumococcal surface adhesin A (PsaA) 37-kDa common cell wall protein. These antibodies were used in a dot immunoblot and Western blot study of clin. isolates of S. pneumoniae to detect the presence of the protein. By both assays, the MAbs reacted with clin. isolates representing the 23 type-specific serotypes present in the licensed pneumococcal polysaccharide vaccine. Western blot anal. confirmed the presence of a protein migrating in the gel with a mol. mass of 37 kDa. An extension of the study by using dot immunoblot anal. that included an anal. of the 90 serotypes of S. pneumoniae showed that all five MAbs reacted with 89 of the 90 serotypes tested. MAb 1B6, the exception, did not react with S. pneumoniae serotype 16F. Dot immunoblot anal. of the MAbs with Enterococcus faecalis and viridans ***streptococci*** showed varied reactivity patterns, depending on the species. The MAbs against the 37-kDa antigen did not react with Escherichia coli, respiratory pathogens, or nonpathogens representing 22 genera and 29 species of bacteria. All five MAbs also reacted with five multidrug-resistant strains of S. pneumoniae. In summary, these MAbs may be useful for detection of pneumococcal antigen and may lead to the development of diagnostic assays for pneumococcal disease.
RE.CNT 50 THERE ARE 50 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 36 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 14
AN 1997:251410 BIOSIS
DN PREV199799550613
TI Limited diversity of ***Streptococcus*** pneumoniae psaA among pneumococcal vaccine serotypes.
AU Sampson, Jacquelyn S. [Reprint author]; Furlow, Zabrina; Whitney, Anne M.; Williams, Derrick; Facklam, Richard; ***Carlone, George M.***
CS Centers Disease Control Prevention, Mailstop G05, Atlanta, GA 30333, USA
SO Infection and Immunity, (1997) Vol. 65, No. 5, pp. 1967-1971.
CODEN: INFIBR. ISSN: 0019-9567.
DT Article
LA English
ED Entered STN: 13 Jun 1997
Last Updated on STN: 13 Jun 1997
AB The pneumococcal surface adhesin A (PsaA) is a surface-exposed protein of the gram-positive bacterium ***Streptococcus*** pneumoniae. It belongs to a group of proteins designated the lipoprotein receptor I antigen family. The gene encoding PsaA from an encapsulated strain of pneumococcal serotype 6B was cloned and sequenced. The peptide sequence was compared to that of homologs found in S. pneumoniae serotype 2, viridans ***streptococci*** , and Enterococcus faecalis. Identity values among the deduced peptides ranged from 57 to 98%. The polymorphism of psaA was examined among the 23 encapsulated vaccine serotypes by using PCR-restriction fragment length polymorphism analysis. Ten different enzymes were used to analyze 80 strains representing the 23 serotypes in a 23-valent polysaccharide vaccine. This analysis showed that restriction sites within the gene were highly conserved, with only a minor variation occurring in 10% of the strains, the result of an additional Tsp509I site. The lack of variation for the other restriction sites within the gene examined here indicates that psaA is genetically conserved, an important

characteristic necessary for a candidate common protein vaccine.

L5 ANSWER 37 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 15
AN 1997:353743 BIOSIS
DN PREV199799660146
TI Standardization of an opsonophagocytic assay for the measurement of functional antibody activity against ***Streptococcus*** pneumoniae using differentiated HL-60 cells.
AU Romero-Steiner, Sandra; Libutti, Daniel; Pais, Lorna B.; Dykes, Janet; Anderson, Porter; Whitin, John C.; Keyserling, Harry L.; ***Carlone,*** George M.*** [Reprint author]
CS Build. 1, Rm. 1260, Mailstop A-36, Div. Bacterial Mycotic Dis., Natl. Cent. Infect. Dis., Cent. Dis. Control Prevention, Atlanta, GA 30333, USA
SO Clinical and Diagnostic Laboratory Immunology, (1997) Vol. 4, No. 4, pp. 415-422.
ISSN: 1071-412X.
DT Article
LA English
ED Entered STN: 25 Aug 1997
Last Updated on STN: 25 Aug 1997
AB Host protection against pneumococcal disease is primarily mediated by phagocytosis. We developed and standardized an opsonophagocytic assay using HL-60 cells (human promyelocytic leukemia cells). Fifty-five serum samples were analyzed for the presence of functional antibody against seven pneumococcal serogroups or serotypes (4, 6B, 9V, 14, 18C, 19F, and 23F) by using differentiated HL-60 cells (granulocytes) and peripheral blood leukocytes (PBLs). Six of the 55 serum samples were from unvaccinated adult volunteers, 31 serum samples were from 16-month-old infants who received four doses of an investigational 7-valent polysaccharide-protein conjugate vaccine. The results of an opsonophagocytic assay from HL-60 cells correlated highly with those of an assay with PBLs as effector cells (median r from seven serotypes = 0.87; P lt 0.01). Opsonophagocytic titers were compared with the immunoglobulin G antibody concentrations determined by enzyme-linked immunosorbent assay (ELISA). The r values for serogroups or serotypes 4, 6B, 9V, 14, 18C, 19F, Opsonophagocytic titers were compared with the immunoglobulin G antibody concentrations determined by and 23F were 0.61, 0.60, 0.67, 0.90, 0.61, 0.39, and 0.57, respectively, when HL-60 cells were used as effector cells and 0.56, 0.47, 0.61, 0.90, 0.71, 0.31, and 0.62, respectively, when PBLs were used. The assay requires small amounts of serum (40 mu-l per serotype), making this test suitable for assaying infant sera. Culturable cells aid in assay standardization and likely reduce donor-to-donor variability. This standardized assay, in combination with the standardized ELISA, can be used to evaluate current and developing pneumococcal vaccines, in which functional opsonophagocytic antibody activity may correlate with protection against pneumococcal disease.

L5 ANSWER 38 OF 39 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1995:237481 BIOSIS
DN PREV199598251781
TI Opsonophagocytic titers correlate with IgG ELISA antibody levels in infants immunized with a ***Streptococcus*** pneumoniae protein-oligosaccharide conjugate vaccine.
AU Keyserling, Harry L. [Reprint author]; Romero-Steiner, Sandra [Reprint author]; Pais, Lorna B.; Dykes, Janet; ***Carlone, George M.***
CS Dep. Peds., Emory Univ., Atlanta, GA, USA
SO Pediatric Research, (1994) Vol. 37, No. 4 PART 2, pp. 179A.
Meeting Info.: 105th Annual Meeting of the American Pediatric Society and the 64th Annual Meeting of the Society for Pediatric Research. San Diego, California, USA. May 7-11, 1995.
CODEN: PEREBL. ISSN: 0031-3998.
DT Conference; (Meeting)

```
     Conference; Abstract; (Meeting Abstract)
LA   English
ED   Entered STN: 9 Jun 1995
     Last Updated on STN: 9 Jun 1995

L5   ANSWER 39 OF 39  USPATFULL on STN
AN     93:80668  USPATFULL
TI     Immunodiagnostic reagent specific for legionella
IN     Aloisio, Carol H., Norcross, GA, United States
           ***Carlone, George M.***  , Stone Mountain, GA, United States
       Plikaytis, Bonnie B., Tucker, GA, United States
       Sampson, Jackie, College Park, GA, United States
PA     The United States of America as represented by the Department of Health
       and Human Services, Washington, DC, United States (U.S. government)
PI     US 5248594              19930928
AI     US 1990-548011          19900705 (7)
DT     Utility
FS     Granted
EXNAM  Primary Examiner: Kepplinger, Esther L.; Assistant Examiner: Bidwell,
       Carol E.
LREP   Lowe, Price, LeBlanc & Becker
CLMN   Number of Claims: 9
ECL    Exemplary Claim: 8
DRWN   4 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 316
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB     A set of three unique monoclonal antibodies have been produced which
       recognize Legionella with particular specificity, without substantial
       cross-reactivity with non-Legionella bacteria. These monoclonal
       antibodies are useful as immunodiagnostic reagents for detecting
       Legionella.


=> e de barun k/au
E1            1     DE BARTOLUCCI D P/AU
E2            5     DE BARUN/AU
E3           65 --> DE BARUN K/AU
E4            2     DE BARUN KUMAR/AU
E5            8     DE BARUTELL C/AU
E6            6     DE BARUTELL FARINOS C/AU
E7            2     DE BARY A/AU
E8            1     DE BARY J/AU
E9            3     DE BARY J B/AU
E10           1     DE BARY J L/AU
E11           2     DE BARY K/AU
E12           2     DE BARYSHE P G/AU

=> s e2-e4 and strept?
L6            4 ("DE BARUN"/AU OR "DE BARUN K"/AU OR "DE BARUN KUMAR"/AU) AND
                STREPT?

=> dup rem l6
PROCESSING COMPLETED FOR L6
L7             2 DUP REM L6 (2 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 2 ANSWERS - CONTINUE? Y/(N):y

L7   ANSWER 1 OF 2  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
     DUPLICATE 1
AN   2004:28184  BIOSIS
DN   PREV200400029304
TI   Analysis of recombinant acylated pneumococcal surface adhesin A of
```

Streptococcus pneumoniae by mass spectrometry.

AU ***De, Barun K.*** ; Woolfitt, Adrian R. [Reprint Author]; Barr, John R.; Daneshvar, Maryam I.; Sampson, Jacquelyn S.; Ades, Edwin W.; Carlone, George M.

CS Division of Laboratory Sciences, National Center for Environmental Health, Centers for Disease Control and Prevention, Atlanta, GA, 30341, USA awoolfitt@cdc.gov

SO Archives of Biochemistry and Biophysics, (November 15 2003) Vol. 419, No. 2, pp. 147-157. print.
ISSN: 0003-9861 (ISSN print).

DT Article

LA English

ED Entered STN: 31 Dec 2003
Last Updated on STN: 31 Dec 2003

AB ***Streptococcus*** pneumoniae pneumococcal surface adhesin A (PsaA) is a species-common, immunogenic surface lipoprotein. In this study, the psaA gene was expressed as a nonfusion acylated protein in an Escherichia coli expression system. Yields of pure recombinant PsaA (rPsaA) were 8-10 mg/liter of fermentation culture. Analysis of rPsaA tryptic digests by HPLC-electrospray mass spectrometry (MS) confirmed 98% of the expected protein sequence. GC/MS data demonstrated very similar acylation of native and rPsaA by C12:0-C22:0 fatty acids, with C16 and C18 predominating. Negative ion electrospray MS/MS analysis of the rPsaA lipid anchor released by Pronase-E confirmed that the structure was based on an N-terminal palmitoylcysteine (Pam3Cys). Electrospray MS heterogeneity analysis of intact rPsaA indicated that all of the observed heterogeneity could be accounted for by the fatty acid distributions. The availability of well-characterized rPsaA will facilitate the continued research and development of protein-based vaccines for the prevention of pneumococcal disease.

L7 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:511257 CAPLUS

DN 131:154473

TI ***Streptococcus*** pneumoniae lipidated PsaA protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection

IN Ades, Edwin W.; Carlone, George M.; ***De, Barun K.*** ; Sampson, Jacquelyn S.; Huebner, Robert C.

PA Center for Disease Control and Prevention, USA

SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940200	A1	19990812	WO 1999-US379	19990114
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2319404	AA	19990812	CA 1999-2319404	19990114
	AU 9923131	A1	19990823	AU 1999-23131	19990114
	EP 1053329	A1	20001122	EP 1999-903011	19990114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9909097	A	20001205	BR 1999-9097	19990114

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     JP 2002505083      T2   20020219       JP 2000-530614   19990114
PRAI US 1998-17782      A    19980203
     WO 1999-US379      W    19990114
AB   The invention provides a chimeric DNA mol. contg. the first 52 amino acids
     of Borrelia burgdorferi gene ospA lipoprotein (including the signal
     peptide) fused to the mature form of   ***Streptococcus***   pneumoniae
     gene psaA pneumococcal surface protein A (PsaA, previously known as
     pneumococcal fimbrial protein A). The invention also provides an
     expression vector contg. the chimeric DNA mol., and the use of the vector
     for recombinant prodn. of lipidated PsaA proteins. The invention further
     provides purifn. methods used to obtain the recombinant PsaA proteins, and
     use of these proteins in immunol. compns. Also provided are vaccines
     comprising immunogenic lipidated PsaA proteins and methods of use of such
     vaccines in the prevention and treatment of S. pneumoniae infection. The
     sequence of the chimeric DNA mol. used in the recombinant prodn. of
     lipidated PsaA proteins was included in the invention.
RE.CNT  10    THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
              ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> e huebner robert c/au
E1            4     HUEBNER ROBERT A/AU
E2            2     HUEBNER ROBERT B/AU
E3           29 --> HUEBNER ROBERT C/AU
E4           70     HUEBNER ROBERT J/AU
E5            1     HUEBNER ROBERT T/AU
E6            1     HUEBNER ROBERT W/AU
E7           12     HUEBNER ROBIN/AU
E8           30     HUEBNER ROBIN E/AU
E9            3     HUEBNER ROGER F/AU
E10           1     HUEBNER ROLAND/AU
E11           5     HUEBNER ROLF/AU
E12           7     HUEBNER ROLF H/AU

=> s e3
L8           29 "HUEBNER ROBERT C"/AU

=> dup rem l8
PROCESSING COMPLETED FOR L8
L9            21 DUP REM L8 (8 DUPLICATES REMOVED)

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 21 ANSWERS - CONTINUE? Y/(N):y

L9   ANSWER 1 OF 21  BIOSIS  COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
     DUPLICATE 1
AN   2003:197132  BIOSIS
DN   PREV200300197132
TI   Expression of lipoproteins.
AU     ***Huebner, Robert C.***   [Inventor, Reprint Author]; Erdile, Lorne F.
     [Inventor]; Warakomski, Donald J. Jr. [Inventor]; Becker, Robert S.
     [Inventor]; Gray, Maryann B. [Inventor]; Pyle, Derek J. [Inventor]
CS   Stroudsburg, PA, USA
     ASSIGNEE: Connaught Laboratories, Inc.
PI   US 6538118 March 25, 2003
SO   Official Gazette of the United States Patent and Trademark Office Patents,
     (Mar 25 2003) Vol. 1268, No. 4. http://www.uspto.gov/web/menu/patdata.html
     . e-file.
     ISSN: 0098-1133 (ISSN print).
DT   Patent
LA   English
ED   Entered STN: 16 Apr 2003
     Last Updated on STN: 16 Apr 2003
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AB Heterologous lipidated proteins formed recombinantly are disclosed and claimed. The expression system can be E. coli. The heterologous lipidated protein has a leader sequence which does not naturally occur with the protein portion of the lipidated protein. The lipidated protein can have the Borrelia OspA leader sequence. The protein portion can be OspC, PspA, UreA, Ure B, or a fragment thereof. Methods and compositions for forming and employing the proteins are also disclosed and claimed.

L9 ANSWER 2 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 2
AN 2002:583037 BIOSIS
DN PREV200200583037
TI Compositions and methods for administering Borrelia DNA.
AU ***Huebner, Robert C.*** [Inventor]; Norman, Jon A. [Inventor, Reprint author]; Liang, Xiaowu [Inventor]; Carner, Kristin R. [Inventor]; Barbour, Alan G. [Inventor]; Luke, Catherine J. [Inventor]
CS San Diego, CA, USA
ASSIGNEE: Pasteur Merieux Serums et Vaccins, Lyons, France; Vical, Inc.; The University of Texas System, Austin, TX, USA
PI US 6451769 September 17, 2002
SO Official Gazette of the United States Patent and Trademark Office Patents, (Sep. 17, 2002) Vol. 1262, No. 3. http://www.uspto.gov/web/menu/patdata.html. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 13 Nov 2002
Last Updated on STN: 13 Nov 2002
AB Disclosed is a vaccine against Lyme Disease or its causative agent Borrelia burgdorferi (sensu stricto or sensu lato) containing a plasmid a DNA encoding a promoter for driving expression in a mammalian cell, DNA encoding a leader peptide for facilitating secretion/release of a prokaryotic protein sequence from a mammalian cell, a DNA encoding Borrelia OspA or OspB, and a DNA encoding a terminator. Disclosed too is an immunogenic composition against Lyme Disease or its causative agent Borrelia burgdorferi (sensu stricto or sensu lato) containing a plasmid comprising a DNA encoding a promoter for driving expression in a mammalian cell, DNA encoding a leader peptide for facilitating secretion/release of a prokaryotic protein sequence from a mammalian cell, a DNA encoding a Borrelia OspC, and a DNA encoding a terminator. And, methods for making and using such vaccines and the immunogenic composition are also disclosed.

L9 ANSWER 3 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 3
AN 2002:308557 BIOSIS
DN PREV200200308557
TI Immunological combination compositions and methods.
AU Becker, Robert S. [Inventor, Reprint author]; ***Huebner, Robert C.*** [Inventor]; Gray, Maryann [Inventor]; Biscardi, Karen S. [Inventor]; Erdile, Lorne F. [Inventor]; Guy, Bruno [Inventor]
CS Henryville, PA, USA
ASSIGNEE: Connaught Laboratories, Inc.
PI US 6379675 April 30, 2002
SO Official Gazette of the United States Patent and Trademark Office Patents, (Apr. 30, 2002) Vol. 1257, No. 5. http://www.uspto.gov/web/menu/patdata.html. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Immunological compositions and methods for making and using them. The

compositions contain at least one antigen and at least one lipoprotein and optionally an adjuvant. The lipoprotein can itself be antigenic or immunogenic. The antigen can be influenza HA and the lipoprotein a recombinantly expressed product having an OspA leader for lipidation and PspA for the protein portion. The antigen can be OspC and the lipoprotein OspA. The components of the composition are co-administered. A potentiated immunological response is obtained by the compositions and methods.

L9 ANSWER 4 OF 21 USPATFULL on STN
AN 2002:242802 USPATFULL
TI Immunological combination compositions and methods
IN Becker, Robert S., Henryville, PA, UNITED STATES
Huebner, Robert C. , Stroudsburg, PA, UNITED STATES
Gray, Maryann, Bartonsville, PA, UNITED STATES
Biscardi, Karen S., South Sterling, PA, UNITED STATES
Erdile, Lorne F., Tassin La Demi Lune, FRANCE
Guy, Bruno, Lyon, FRANCE
PI US 2002131983 A1 20020919
AI US 2002-96687 A1 20020312 (10)
RLI Continuation of Ser. No. US 1996-588621, filed on 19 Jan 1996, GRANTED, Pat. No. US 6379675 Continuation-in-part of Ser. No. US 1995-476656, filed on 7 Jun 1995, GRANTED, Pat. No. US 6251405
DT Utility
FS APPLICATION
LREP Patrick J. Halloran, Aventis Pasteur, Inc., Intellectual Property - Knerr Building, One Discovery Drive, Swiftwater, PA, 18370
CLMN Number of Claims: 43
ECL Exemplary Claim: 1
DRWN 5 Drawing Page(s)
LN.CNT 1605
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Immunological compositions and methods for making and using them. The compositions contain at least one antigen and at least one lipoprotein and optionally an adjuvant. The lipoprotein can itself be antigenic or immunogenic. The antigen can be influenza HA and the lipoprotein a recombinantly expressed product having an OspA leader for lipidation and PspA for the protein portion. The antigen can be OspC and the lipoprotein OspA. The components of the composition are co-administered. A potentiated immunological response is obtained by the compositions and methods.

L9 ANSWER 5 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 4
AN 2001:417023 BIOSIS
DN PREV200100417023
TI Immunological combination compositions and methods.
AU Becker, Robert S. [Inventor]; ***Huebner, Robert C.*** [Inventor, Reprint author]; Gray, Maryann B. [Inventor]; Biscardi, Karen S. [Inventor]
CS Stroudsburg, PA, USA
ASSIGNEE: Connaught Laboratories, Inc.
PI US 6251405 June 26, 2001
SO Official Gazette of the United States Patent and Trademark Office Patents, (June 26, 2001) Vol. 1247, No. 4. e-file.
CODEN: OGUPE7. ISSN: 0098-1133.
DT Patent
LA English
ED Entered STN: 29 Aug 2001
Last Updated on STN: 22 Feb 2002
AB Immunological compositions and methods for making and using them. The compositions contain an antigen and a lipoprotein and optionally an adjuvant. The lipoprotein can itself be antigenic or immurogenic. The

antigen can be influenza HA and the lipoprotein a recombinantly expressed product having an OspA leader for lipidation and PspA for the protein portion. The antigen can be OspC and the lipoprotein OspA. The components of the composition are co-administered. A potentiated immunological response is obtained by the compositions and methods.

L9 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2000:900482 CAPLUS
DN 134:46755
TI Pneumococcal surface protein combination vaccine
IN ***Huebner, Robert C.*** ; Sampson, Jacquelyn S.; Carlone, George M.; Ades, Edwin; Briles, David E.
PA Uab Research Foundation, USA; Aventis Pasteur; Centers for Disease Control and Prevention
SO PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000076541	A1	20001221	WO 2000-US40176	20000609
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	BR 2000011478	A	20020319	BR 2000-11478	20000609
	EP 1189632	A1	20020327	EP 2000-947640	20000609
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	JP 2003519089	T2	20030617	JP 2001-502874	20000609
PRAI	US 1999-138422P	P	19990610		
	US 2000-587833	A	20000606		
	WO 2000-US40176	W	20000609		

AB The present invention relates to synergistic immunogenic combinations contg. two or more pneumococcal surface proteins, including PspA and/or PspC and/or PsaA, advantageously, PspA and PsaA. Also provided are methods of intranasal administration of such immunogenic combinations to reduce nasopharyngeal carriage of pneumococci and methods of use of such immunogenic combinations in the prevention and treatment of S. pneumoniae infection.
RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 7 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 5
AN 2000:110102 BIOSIS
DN PREV200000110102
TI Intranasal immunization of mice with a mixture of the pneumococcal proteins PsaA and PspA is highly protective against nasopharyngeal carriage of Streptococcus pneumoniae.
AU Briles, David E. [Reprint author]; Ades, Eddie; Paton, James C.; Sampson, Jacquelyn S.; Carlone, George M.; ***Huebner, Robert C.*** ; Virolainen, Anni; Swiatlo, Edwin; Hollingshead, Susan K.
CS Department of Microbiology, UAB, 845 19th St. South, 658 Bevill Building, Birmingham, AL, 35294, USA
SO Infection and Immunity, (Feb., 2000) Vol. 68, No. 2, pp. 796-800. print.
CODEN: INFIBR. ISSN: 0019-9567.

DT Article
LA English
ED Entered STN: 22 Mar 2000
Last Updated on STN: 3 Jan 2002
AB Acquisition of pneumococci is generally from carriers rather than from infected individuals. Therefore, to induce herd immunity against Streptococcus pneumoniae it will be necessary to elicit protection against carriage. Capsular polysaccharide-protein conjugates, PspA, and PsaA are known to elicit some protection against nasopharyngeal carriage of pneumococci but do not always completely eliminate carriage. In this study, we observed that PsaA elicited better protection than did PspA against carriage. Pneumolysin elicited no protection against carriage. Immunization with a mixture of PsaA and PspA elicited the best protection against carriage. These results indicate that PspA and PsaA may be useful for the elicitation of herd immunity in humans. As PspA and pneumolysin are known to elicit immunity to bacteremia and pneumonia, their inclusion in a mucosal vaccine may enable such a vaccine to prevent invasive disease as well as carriage.

L9 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511257 CAPLUS
DN 131:154473
TI Streptococcus pneumoniae lipidated PsaA protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection
IN Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; ***Huebner, Robert C.***
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940200	A1	19990812	WO 1999-US379	19990114
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2319404	AA	19990812	CA 1999-2319404	19990114
	AU 9923131	A1	19990823	AU 1999-23131	19990114
	EP 1053329	A1	20001122	EP 1999-903011	19990114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9909097	A	20001205	BR 1999-9097	19990114
	JP 2002505083	T2	20020219	JP 2000-530614	19990114
PRAI	US 1998-17782	A	19980203		
	WO 1999-US379	W	19990114		

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of Streptococcus pneumoniae gene psaA pneumococcal surface protein A (PsaA, previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of lipidated PsaA proteins. The invention further provides purifn. methods used to obtain the recombinant PsaA proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic lipidated PsaA proteins and methods of use of such vaccines in

the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of lipidated PsaA proteins was included in the invention.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L9 ANSWER 9 OF 21 USPATFULL on STN
AN 1998:154254 USPATFULL
TI Compositions and methods for administering Borrelia DNA
IN ***Huebner, Robert C.*** , Stroudsburg, PA, United States
Norman, Jon A., Poway, CA, United States
Liang, Xiaowu, La Jolla, CA, United States
Carner, Kristin R., San Diego, CA, United States
Barbour, Alan G., San Antonio, TX, United States
Luke, Catherine J., San Antonio, TX, United States
PA Pasteur Merieux Serums et Vaccins, Lyon, France (non-U.S. corporation)
Vical Inc., San Diego, CA, United States (U.S. corporation)
University of Texas Health Science Center, San Antonio, TX, United States (U.S. corporation)
PI US 5846946 19981208
AI US 1996-663998 19960614 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Low, Christopher S. F.; Assistant Examiner: Nguyen, Dave Trong
LREP Frommer Lawrence & Haug LLP, Frommer, William S., Kowalski, Thomas J.
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 39 Drawing Figure(s); 37 Drawing Page(s)
LN.CNT 1584
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Plasmid DNA encoding at least one Borrelia genospecies antigen and methods for making and using such a plasmid are disclosed and claimed. The genospecies can be burgdorferi, garinii and/or afzelli. The antigen can be OspA and/or OspB and/or OspC. Compositions containing the plasmid DNA are useful for administration to a host susceptible to Lyme Disease for an in vivo response, such as a protective response, or for generating useful antibodies. The inventive plasmid can also be transfected into cells for generating antigens in vitro. And, the inventive plasmid can be prepared by isolating DNA (such as DNA coding for: promoter, leader sequence, antigen, and terminator) and performing a ligation or ligations, such as a three-way ligation. More particularly, administration of DNA encoding Borrelia genospecies antigen, e.g., OspA and/or OspB and/or OspC and compositions therefor for eliciting an immunological response against Borrelia, such as a protective response preventive of Lyme Disease, are disclosed and claimed. Thus, Lyme Disease vaccines or immunological compositions, and methods of making and using them, are disclosed and claimed.

L9 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1998:13807 CAPLUS
DN 128:101085
TI Compositions and methods for administering Borrelia DNA
IN ***Huebner, Robert C.*** ; Norman, Jon A.; Liang, Xiaowu; Carner, Kristin R.; Barbour, Alan G.; Luke, Catherine J.
PA Pasteur Merieux Serums Et Vaccins, Fr.; Vical, Inc.; Texas Health Science Center, University Of Texas
SO PCT Int. Appl., 80 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2
PATENT NO. KIND DATE APPLICATION NO. DATE

PI	WO 9747197	A1	19971218	WO 1997-US9439	19970603
	W: AU, CA, IL, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5846946	A	19981208	US 1996-663998	19960614
	CA 2258016	AA	19971218	CA 1997-2258016	19970603
	AU 9731523	A1	19980101	AU 1997-31523	19970603
	AU 722088	B2	20000720		
	EP 1006796	A1	20000614	EP 1997-926863	19970603
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 2001503245	T2	20010313	JP 1998-501654	19970603
	ZA 9705211	A	19980105	ZA 1997-5211	19970612
	NO 9805788	A	19990215	NO 1998-5788	19981210
PRAI	US 1996-663998	A	19960614		
	WO 1997-US9439	W	19970603		

AB Plasmid DNA encoding at least one Borrelia genospecies antigen and methods for making and using such a plasmid are disclosed and claimed. The genospecies can be B. burgdorferi, garinii and/or afzelii. The antigen can be OspA and/or OspB and/or OspC. Compns. contg. the plasmid DNA are useful for administration to a host susceptible to Lyme Disease for an in vivo response, such as a protective response, or for generating useful antibodies. The inventive plasmid can also be transfected into cells for generating antigens in vitro. And, the inventive plasmid can be prepd. by isolating DNA (such as DNA coding for: promoter, leader sequence, antigen, and terminator) and performing a ligation or ligations, such as a three-way ligation. More particularly, administration of DNA encoding Borrelia genospecies antigen, e.g., OspA and/or OspB and/or OspC and compns. therefor for eliciting an immunol. response against Borrelia, such as a protective response preventive of Lyme Disease, are disclosed and claimed. Thus, Lyme Disease vaccines or immunol. compns., and methods of making and using them, are disclosed and claimed.

L9 ANSWER 11 OF 21 USPATFULL on STN
AN 97:22484 USPATFULL
TI Influenza virus subunit conjugates
IN ***Huebner, Robert C.*** , Bartonsville, PA, United States
Harmon, Maurice W., Tannersville, PA, United States
PA Connaught Laboratories, Inc., Swiftwater, PA, United States (U.S. corporation)
PI US 5612037 19970318
AI US 1994-280463 19940726 (8)
DT Utility
FS Granted
EXNAM Primary Examiner: Fleisher, Mindy; Assistant Examiner: McKelvey, Terry A.
LREP Curtis, Morris & Safford, P.C.
CLMN Number of Claims: 9
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 440
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Conjugates of HA protein of influenza virus suitable for formulation as a vaccine for obtaining a strong immune response to the HA protein are formed by separating whole HA protein from the influenza virus by detergent extraction or by providing whole HA protein by recombinant procedure, treating the HA protein with hydroxylamine to form free sulfhydryl groups in the cytoplasmic domain of the protein, and cross-linking the free sulfhydryl group-containing HA protein to itself using a bis-maleimide linker or to a maleimide-modified diphtheria toxoid, tetanus toxoid or influenza NP protein or other carrier molecule. The procedure is applicable to other proteins which can be separated from a cellular material, such as a virus, and which contain

thioester bonds convertible to sulfhydryl groups.

L9 ANSWER 12 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:465331 BIOSIS
DN PREV199799764534
TI Bacterial lipidation adjuvants recombinant bacterial, viral, and parasitic antigens.
AU ***Huebner, Robert C.*** ; Biscardi, Karen S.; Becker, Robert S.
CS Connaught Lab. Inc., Swiftwater, PA 18370-0187, USA
SO Brown, F. [Editor]; Burton, D. [Editor]; Doherty, P. [Editor]; Mekalanos, J. [Editor]. Vaccines (Cold Spring Harbor), (1997) pp. 45-49. Vaccines (Cold Spring Harbor); Molecular approaches to the control of infectious diseases.
Publisher: Cold Spring Harbor Laboratory Press, 10 Skyline Drive, Plainview, New York 11803, USA. Series: Vaccines (Cold Spring Harbor).
Meeting Info.: Fourteenth Annual Meeting on Modern Approaches to the Control of Infectious Diseases. Cold Spring Harbor, New York, USA. September 9-13, 1996.
ISSN: 0899-4056. ISBN: 0-87969-516-1.
DT Book; (Book Chapter)
Conference; (Meeting Paper)
LA English
ED Entered STN: 4 Nov 1997
Last Updated on STN: 4 Nov 1997

L9 ANSWER 13 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 1997:465330 BIOSIS
DN PREV199799764533
TI Recombinant engineering of PspA antigen from Streptococcus pneumoniae as a PAM-3cys-lipidated protein potentiates immunogenicity for both parenteral and mucosal routes of administration.
AU Becker, Robert S.; Gray, Mary-Ann L.; Biscardi, Karen S.; Pyle, Derek J.; ***Huebner, Robert C.*** ; Nabors, Gary S.
CS Connaught Lab. Inc., Swiftwater, PA 18370, USA
SO Brown, F. [Editor]; Burton, D. [Editor]; Doherty, P. [Editor]; Mekalanos, J. [Editor]. Vaccines (Cold Spring Harbor), (1997) pp. 39-44. Vaccines (Cold Spring Harbor); Molecular approaches to the control of infectious diseases.
Publisher: Cold Spring Harbor Laboratory Press, 10 Skyline Drive, Plainview, New York 11803, USA. Series: Vaccines (Cold Spring Harbor).
Meeting Info.: Fourteenth Annual Meeting on Modern Approaches to the Control of Infectious Diseases. Cold Spring Harbor, New York, USA. September 9-13, 1996.
ISSN: 0899-4056. ISBN: 0-87969-516-1.
DT Book; (Book Chapter)
Conference; (Meeting Paper)
LA English
ED Entered STN: 4 Nov 1997
Last Updated on STN: 4 Nov 1997

L9 ANSWER 14 OF 21 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
DUPLICATE 6
AN 1997:308740 BIOSIS
DN PREV199799616543
TI Oral delivery of purified lipoprotein OspA protects mice from systemic infection with Borrelia burgdorferi.
AU Luke, Catherine J. [Reprint author]; ***Huebner, Robert C.*** ; Kasmiersky, Valerie; Barbour, Alan G.
CS Dep. Microbiol. Mol. Genet., Univ. Calif., Irvine, CA 92697-4025, USA
SO Vaccine, (1997) Vol. 15, No. 6-7, pp. 739-746.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English

ED Entered STN: 26 Jul 1997
Last Updated on STN: 26 Jul 1997

AB The lipoprotein outer surface protein A (OspA) of the Lyme disease agent, Borrelia burgdorferi, has provided protection to mice and other animals against systemic infection when delivered orally as a recombinant protein in Escherichia coli, bacille Calmette-Guerin or Salmonella typhimurium. In the present study purified recombinant strain B31 OspA or outer surface protein D (OspD), another lipoprotein of B. burgdorferi, were administered either subcutaneously (sc.) or orally without cell carrier or adjuvant to mice. In comparison to the OspD preparation, the OspA protein was 256-fold more resistant to trypsin. Whereas OspA in the suspension was in regular complexes of 17-25 nm in size, OspD formed amorphous globules of different sizes. Animals received a primary immunization and at least one booster. Mice immunized s. c. with either OspA or OspD had detectable antibodies to B. burgdorferi by enzyme-linked immunosorbent assay (ELISA), growth inhibition assay (GIA) and immunoblot. Delivered orally, OspA but not OspD elicited a specific antibody response, including IgA, as determined by these assays. The geometric mean titre of sera from mice who received 4 jig of OspA orally on days 1, 2, 4, 21 and 22 was 1470 by Ig ELISA, 320 by IgA ELISA and 128 by GIA. In infectious challenge experiments with B. burgdorferi strain Sh2-2-82 (OspA+OspD-) inoculated intradermally at 100 times the ID-50, all eight mice immunized with the 4 mu-g dose of OspA were protected; none of the mice immunized with the 4 mu-g dose of OspD were protected (P lt 0.001 by Fisher exact test). These studies indicate that the lipoprotein OspA provides protection against systemic B. burgdorferi infection when delivered orally as a purified protein.

L9 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:431949 CAPLUS
DN 127:175081
TI Recombinant engineering of PspA antigen from Streptococcus pneumoniae as a PAM3cys-lipidated protein potentiates immunogenicity for both parenteral and mucosal routes of administration
AU Becker, Robert S.; Gray, Mary-Ann L.; Biscardi, Karen S.; Pyle, Derek J.; ***Huebner, Robert C.*** ; Nabors, Gary S.
CS Connaught Laboratories, Inc., Swiftwater, PA, 18370, USA
SO Vaccines 97: Molecular Approaches to the Control of Infectious Diseases, [Annual Meeting on Modern Approaches to the Control of Infectious Diseases], 14th, Cold Spring Harbor, N. Y., Sept. 9-13, 1996 (1997), Meeting Date 1996, 39-44. Editor(s): Brown, Fred. Publisher: Cold Spring Harbor Laboratory Press, Cold Spring Harbor, N. Y.
CODEN: 64QNAJ
DT Conference
LA English
AB Pneumococcal surface protein A (PspA) is a candidate for an improved pneumococcal vaccine. The expression of PspA is required for full virulence of pneumococci in mouse models. Active and passive immunization with PspA has demonstrated that it can protect mice from i.v. challenge with pneumococci. PspA may provide a vaccine that will be broadly efficacious, immunogenic in both infant and adult populations, and contain fewer components than the existing 23-valent pneumococcal polysaccharide vaccine.

L9 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:124481 CAPLUS
DN 126:127880
TI Manufacture of protein conjugates with N-palmitoyl-S-[2,3-bis(palmitoyloxy)-(2RS)-propyl]-(R)-cysteine for use as antigens in bacterial hosts using a Borrelia signal sequence
IN ***Huebner, Robert C.*** ; Erdile, Lorne F.; Warakomski, Donald J.; Becker, Robert S.; Gray, Maryann B.; Pyle, Derek L.
PA Connaught Laboratories, Inc., USA

SO PCT Int. Appl., 72 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 19

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9640718	A1	19961219	WO 1996-IB633	19960605
	W: AU, CA, FI, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2223300	AA	19961219	CA 1996-2223300	19960605
	AU 9661343	A1	19961230	AU 1996-61343	19960605
	AU 721954	B2	20000720		
	EP 832093	A1	19980401	EP 1996-918793	19960605
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 11514841	T2	19991221	JP 1996-500268	19960605
	ZA 9604896	A	19970108	ZA 1996-4896	19960607
	NO 9705619	A	19980130	NO 1997-5619	19971204
	FI 9704422	A	19980204	FI 1997-4422	19971205
PRAI	US 1995-475781	A	19950607		
	US 1995-486373	A	19950607		
	WO 1996-IB633	W	19960605		

AB A method of manufg. proteins lipidated with Pam3Cys (N-palmitoyl-S-[2,3-bis(palmitoyloxy)-(2RS)-propyl]-(R)-cysteine) in a microbial host such as Escherichia coli is described. The protein is manufd. as a precursor with a leader peptide from the outer surface protein A of Borrelia. Pam3Cys lipidation of peptides greatly increases their antigenicity. Processing of the leader peptide with signal peptidase II leads to lipidation of the N-terminus with Pam3Cys. Preferred targets for lipidation with Pam3Cys are OspC of European isolates of Borrelia burgdorferi, PspA of Streptococcus pneumoniae, UreA or UreB of Helicobacter pylori, or fragments derived from them. Lipidation of these proteins allows them to be rapidly purified by partition into aq. Triton X-114 solns. Manuf. of Pam3Cys-lipidated OspC and pspA gene products is demonstrated.

L9 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1997:124447 CAPLUS
DN 126:130583
TI Compositions containing antigen and lipoprotein and adjuvant for inducing immunological response in host
IN Becker, Robert S.; ***Huebner, Robert C.*** ; Gray, Maryann B.; Biscardi, Karen S.; Erdile, Lorne F.; Guy, Bruno
PA Connaught Laboratories, Inc., USA
SO PCT Int. Appl., 64 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9640290	A1	19961219	WO 1996-US8866	19960605
	W: AU, CA, FI, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 6251405	B1	20010626	US 1995-476656	19950607
	US 6379675	B1	20020430	US 1996-588621	19960119
	AU 9661519	A1	19961230	AU 1996-61519	19960605
	AU 717890	B2	20000406		
	EP 831937	A1	19980401	EP 1996-919085	19960605
	EP 831937	B1	20030917		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	JP 11510370	T2	19990914	JP 1996-501336	19960605

	AT 249844	E	20031015	AT 1996-919085	19960605
	NO 9705620	A	19980204	NO 1997-5620	19971204
	FI 9704423	A	19980204	FI 1997-4423	19971205
PRAI	US 1995-476656	A	19950607		
	US 1996-588621	A	19960119		
	WO 1996-US8866	W	19960605		

AB Vaccine compns. contg. at least one antigen and at least one lipoprotein and optionally an adjuvant is disclosed. The lipoprotein can itself be antigenic or immunogenic. The antigen can be influenza hemagglutinin (HA) and the lipoprotein a recombinantly expressed product having an OspA leader for lipidation and PspA for the protein portion. The antigen can also be OspC and the lipoprotein OspA.

L9 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1996:311481 CAPLUS
DN 124:325363
TI Influenza virus subunit conjugates
IN ***Huebner, Robert C.*** ; Harmon, Maurice W.
PA Connaught Laboratories, Inc., USA
SO PCT Int. Appl., 23 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9603145	A1	19960208	WO 1995-US9235	19950720
	W: AU, CA, FI, JP, NO				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	US 5612037	A	19970318	US 1994-280463	19940726
	ZA 9505945	A	19960221	ZA 1995-5945	19950717
	IL 114666	A1	19991222	IL 1995-114666	19950719
	CA 2194183	AA	19960208	CA 1995-2194183	19950720
	AU 9532342	A1	19960222	AU 1995-32342	19950720
	AU 707143	B2	19990701		
	EP 810876	A1	19971210	EP 1995-928672	19950720
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
	JP 10503494	T2	19980331	JP 1995-505882	19950720
	NO 9700080	A	19970109	NO 1997-80	19970109
	FI 9700277	A	19970123	FI 1997-277	19970123
PRAI	US 1994-280463	A	19940726		
	WO 1995-US9235	W	19950720		

OS MARPAT 124:325363
AB Conjugates of hemagglutinin (HA) protein of influenza virus suitable for formulation as a vaccine for obtaining a strong immune response to the HA protein are formed by sepg. whole HA protein from the influenza virus by detergent extn. or by providing whole HA protein by recombinant procedure, treating the HA protein with hydroxylamine to form free sulfhydryl groups in the cytoplasmic domain of the protein, and crosslinking the free sulfhydryl group-contg. HA protein to itself using a bis-maleimide linker or to a maleimide-modified diphtheria toxoid, tetanus toxoid or influenza NP protein or other carrier mol. The procedure is applicable to other proteins which can be sepd. from a cellular material, such as a virus, and which contain thioester bonds convertible to sulfhydril groups.

L9 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1992:19046 CAPLUS
DN 116:19046
TI Carboxyl-terminal determinants of Abelson protein important for lymphoma induction
AU Parmar, Kalindi; ***Huebner, Robert C.*** ; Rosenberg, Naomi
CS Sch. Med., Tufts Univ., Boston, MA, 02111, USA
SO Journal of Virology (1991), 65(12), 6478-85

CODEN: JOVIAM; ISSN: 0022-538X
DT Journal
LA English
AB The carboxyl-terminal region of the Abelson protein is not absolutely required for Abelson virus transformation. However, Abelson virus strains encoding proteins missing portions of this region have a reduced ability to transform lymphoid cells in vitro and in vivo. One such strain, called P90A, is unique in that P90A-injected mice almost always develop tumors contg. highly oncogenic variants that encode new forms of Abelson protein. This study examd. the mechanism by which these variants are generated and used the variants to identify carboxyl-terminal protein sequences important for the induction of Abelson disease. Anal. of mice injected with helper-free P90A virus stocks demonstrates that the variants are generated during viral replication in vivo, probably as a consequence of error-prone reverse transcription. The sequence of the P90A viral genome reveals that a 19-base deletion is responsible for synthesis of the truncated Abelson protein. As a consequence of this mutation, 167 carboxyl-terminal amino acids normally found in the wild-type protein have been replaced by 33 amino acids derived from an alternative reading frame. Site-directed mutants show that the combination of the deletion and the P90A carboxyl terminus is required for the generation of variants. Thus, the particular structure of the P90A protein, not the specific residues lost or gained, alters the transforming potential of the Abelson protein. Finally, the sequence of the variants encoding smaller Abelson proteins reveals that as few as 452 v-abl-encoded amino acids are required for rapid induction of Abelson disease.

L9 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1990:495793 CAPLUS
DN 113:95793
TI Expression of antigenically active dengue-1 virus proteins using recombinant baculoviruses
AU ***Huebner, Robert C.*** ; Wysokenski, Donna; Mason, Thomas L.; Fournier, Maurille J.
CS Dep. Biochem., Univ. Massachusetts, Amherst, MA, 01003, USA
SO Vaccines 90: Mod. Approaches New Vaccines Incl. Prev. AIDS, [Conf.], 7th (1990), Meeting Date 1989, 125-30. Editor(s): Brown, Fred. Publisher: Cold Spring Harbor Lab., Cold Spring Harbor, N. Y.
CODEN: 56UPAE
DT Conference
LA English
AB Dengue virus D-1 protein was expressed in a recombinant baculovirus system, yielding pre-M, E, and a truncated NS1 protein. However, a significant portion of the expressed polyprotein was either not processed or improperly processed. Antibodies produced by immunization of mice with exts. from baculovirus-infected cells were reactive against authentic E and NS1 proteins.

L9 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1989:55147 CAPLUS
DN 110:55147
TI Abelson virus sequences important in lymphoid transformation
AU ***Huebner, Robert C.*** ; Engelman, Alan; Schiff, Leslie; Rosenberg, Naomi
CS Sch. Med., Tufts Univ., Boston, MA, 02111, USA
SO UCLA Symposia on Molecular and Cellular Biology, New Series (1988), 85(B Cell Dev.), 257-70
CODEN: USMBD6; ISSN: 0735-9543
DT Journal
LA English
AB Abelson murine leukemia virus (Ab-MLV) transforms both NIH 3T3 and lymphoid cells in vitro and induces lymphomas in vivo. Although the majority of the viral coding sequence is dispensable for fibroblast

transformation, loss of coding information from the 3'-end of v-abl reduces the ability of the virus to transform lymphoid cells in vivo and in vitro. Using a variety of Ab-MLV strains, the sequence requirements for Ab-MLV-lymphoid cell interaction were reexamd. These data suggest that sequences at the C-terminal end of the Abelson protein play a complex role in lymphoid cell transformation.

=> s streptoco? and PsaA
L10 396 STREPTOCO? AND PSAA

=> dup rem l10
PROCESSING COMPLETED FOR L10
L11 151 DUP REM L10 (245 DUPLICATES REMOVED)

=> s l11 and lipidated
L12 15 L11 AND LIPIDATED

=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 15 ANSWERS - CONTINUE? Y/(N):y

L12 ANSWER 1 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:202251 BIOSIS
DN PREV200300202251
TI Inhibition of pneumococcal adherence to human nasopharyngeal epithelial cells by anti- ***PsaA*** antibodies.
AU Romero-Steiner, Sandra [Reprint Author]; Pilishvili, Tamar; Sampson, Jacquelyn S.; Johnson, Scott E.; Stinson, Annie; Carlone, George M.; Ades, Edwin W.
CS Respiratory Diseases Immunology Section, Respiratory Diseases Branch, Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, 1600 Clifton Rd., MS A-36, Atlanta, GA, 30333, USA SSteiner@cdc.gov
SO Clinical and Diagnostic Laboratory Immunology, (March 2003) Vol. 10, No. 2, pp. 246-251. print.
ISSN: 1071-412X (ISSN print).
DT Article
LA English
ED Entered STN: 23 Apr 2003
Last Updated on STN: 23 Apr 2003
AB The role of pneumococcal (Pnc) surface adhesin A (***PsaA***) in the adherence of ***Streptococcus*** pneumoniae (pneumococcus) to host cells is not well defined. We examined the effect of anti- ***PsaA*** antibodies in an inhibition of adherence assay using Detroit 562 nasopharyngeal human epithelial cells. Rabbit polyclonal (Pab) anti-recombinant ***PsaA*** (rPsaA) sera, a purified mouse monoclonal antibody (MAb) (MAb 6F62G8E12), and 22 healthy adult sera with known anti- ***PsaA*** IgG levels (obtained by enzyme-linked immunosorbent assay) were evaluated for their abilities to inhibit Pnc adherence to confluent monolayers (measured as percent reduction in CFU counts compared to those of uninhibited controls). Pnc adherence was dependent on capsular phenotype (no or low adherence for opaque strains). With an inoculum of 104 to 105 bacteria/well, the mean +- standard deviation count in controls was 163 +- 32 CFU/well for transparent strains. Low adherence was observed for a ***PsaA*** -minus mutant even at higher inoculum doses. Mean percent inhibitions of adherence with Pab and MAb were 54 and 50%, respectively. Adult sera showed inhibition in a dose-response fashion with a range of 98 to 8%, depending on the serum anti- ***PsaA*** antibody concentration. Absorption of Pab with rPsaA restored Pnc adherence to control levels. Absorption of sera with a ***PsaA*** -minus mutant did not result in a significant decrease (P >0.05) of inhibition of adherence activity. Additionally, nearly 100% of Pnc adherence was inhibited by ***lipidated*** rPsaA at 2.5 mug/ml. Our

data support the argument that ***PsaA*** is an adhesin that mediates Pnc adherence to human nasopharyngeal cells. This functional assay may be useful in evaluating antibodies elicited in response to ***PsaA*** vaccination.

L12 ANSWER 2 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2003:181183 BIOSIS
DN PREV200300181183
TI Construction and evaluation of a plasmid vector for the expression of recombinant lipoproteins in Escherichia coli.
AU Cullen, Paul A.; Lo, Miranda; Bulach, Dieter M.; Cordwell, Stuart J.; Adler, Ben [Reprint Author]
CS Department of Microbiology, Bacterial Pathogenesis Research Group, Monash University, Clayton, VIC, 3800, Australia
Ben.Adler@med.monash.edu.au
SO Plasmid, (January 2003) Vol. 49, No. 1, pp. 18-29. print.
ISSN: 0147-619X (ISSN print).
DT Article
LA English
ED Entered STN: 9 Apr 2003
Last Updated on STN: 9 Apr 2003
AB Outer membrane lipoproteins are emerging as key targets for protective immunity to many bacterial pathogens. Heterologous expression of lipoproteins in Escherichia coli does not always result in high level expression of acylated recombinant protein. Thus, these proteins do not take up their correct membrane topology and are lacking the immunostimulatory properties endowed by the lipid. To this end, we have designed a lipoprotein expression vector (pDUMP) that results in the production of fusion proteins containing the E. coli major outer membrane lipoprotein (Lpp) signal sequence, lipoprotein signal peptidase recognition site, and the +2 outer membrane sorting signal at their N termini. To test the ability of pDUMP to express lipoproteins from heterologous hosts, the surface lipoprotein ***PsaA*** from the Gram-positive organism ***Streptococcus*** pneumoniae and the outer membrane lipoproteins MlpA from the Gram-negative Pasteurella multocida and BlpA from the spirochete Brachyspira hyodysenteriae were cloned into both hexahistidine fusion vectors and pDUMP. High level expression of antigenically active protein from both the hexahistidine fusion vectors and pDUMP resulted in abundant bands of the predicted molecular masses when analyzed by SDS-PAGE. When grown in the presence of 3(H)palmitic acid, proteins encoded by pDUMP were observed to incorporate palmitic acid whilst the hexahistidine fusion proteins did not. Using mass spectrometry and image analysis we determined the efficiency of lipidation between the three clones to vary from 31.7 to 100%. In addition, ***lipidated*** , but not hexahistidine, forms of the proteins were presented on the E. coli surface.

L12 ANSWER 3 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2002:303982 BIOSIS
DN PREV200200303982
TI Inhibition of pneumococcal carriage in mice by subcutaneous immunization with peptides from the common surface protein pneumococcal surface adhesin A.
AU Johnson, Scott E. [Reprint author]; Dykes, Janet K.; Jue, Danny L.; Sampson, Jaquelyn S.; Carlone, George M.; Ades, Edwin W.
CS Division of Bacterial and Mycotic Diseases, Centers for Disease Control and Prevention, Respiratory Diseases Branch, National Center for Infectious Diseases, Atlanta, GA, 30333, USA
sjohnson@cdc.gov
SO Journal of Infectious Diseases, (15 February, 2002) Vol. 185, No. 4, pp. 489-496. print.
CODEN: JIDIAQ. ISSN: 0022-1899.
DT Article

LA English
ED Entered STN: 22 May 2002
Last Updated on STN: 22 May 2002
AB Pneumococcal surface adhesin A (***PsaA***), a common protein expressed on all 90 pneumococcal serotypes, is a vaccine candidate. Three anti- ***PsaA*** monoclonal antibody phage display-expressed monopeptides (15 mers), in various formulations as ***lipidated*** or nonlipidated multiantigenic peptides or as bi- or tripeptide constructs, were studied in a mouse nasopharyngeal carriage model to determine the inhibitory effect of induced antibodies on carriage of pneumococcal serotypes 2,4, and 6B. Antibodies to each of the various peptides tested reduced carriage of the 3 serotypes. Reduction in carriage by nonlipidated multiantigenic peptide antibodies was highly variable (39%-94%; mean, 59%; standard deviation (SD), 20.2%); however, more-consistent results were observed in mice immunized with ***lipidated*** (56%-98%; mean, 69%; SD, 13.6%) and combination or bipeptide (55%-91%; mean, 76%; SD, 13.1%) formulations. These peptides are immunogenic, and their induced antibodies reduce carriage in mice. ***PsaA*** peptides demonstrate potential for being important new vaccines against pneumococcal carriage, otitis media, and invasive pneumococcal disease.

L12 ANSWER 4 OF 15 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:196444 BIOSIS
DN PREV200000196444
TI Selection of an immunogenic and protective epitope of the ***PsaA*** protein of ***Streptococcus*** pneumoniae using a phage display library.
AU Srivastava, N.; Zeiler, J. L.; Smithson, S. L.; Carlone, G. M.; Ades, E. W.; Sampson, J. S.; Johnson, S. E.; Kieber-Emmons, T.; Westerink, M.A.J. [Reprint author]
CS Department of Medicine, Medical College of Ohio, 3055 Arlington Avenue, Toledo, OH, 43614, USA
SO Hybridoma, (Feb., 2000) Vol. 19, No. 1, pp. 23-31. print.
CODEN: HYBRDY. ISSN: 0272-457X.
DT Article
LA English
ED Entered STN: 17 May 2000
Last Updated on STN: 4 Jan 2002
AB ***Streptococcus*** pneumoniae is an important pathogen that causes disease in young and elderly individuals. The currently available polysaccharide vaccines have limited efficacy in those age groups most susceptible to pneumococcal infections. This study focuses on mapping the epitopes of a surface protein of S. pneumoniae by biopanning a 15 mer phage display library using 5 different monoclonal antibodies (MAbs) against the Pneumoccal surface adhesin A (***PsaA***). ***PsaA*** is a component of the bacterial cell wall that is highly species specific and is involved in bacterial adherence and virulence. Biopanning of the phage display library reveals three distinct epitopes on the ***PsaA*** protein. The sequence homology of these epitopes ranges from two to six amino acids when compared to the native ***PsaA*** protein type 2. Two of these epitopes have been evaluated for their immunogeneicity in mice. The peptide selected by the MAbs 8G12, 6F6, and 1B7 is referred to as the consensus peptide and is immunogenic in mice. Optimal anti- ***PsaA*** response is observed in mice immunized with 50 mug of the consensus peptide complexed to proteosomes in 1:1 ratio. The anti- ***PsaA*** response is significantly lower than the response to the ***PsaA*** native protein. The peptide selected by monoclonal antibody 4E9 in its ***lipidated*** form is significantly protective in mice challenged with S. pneumoniae serotype 2 when compared to mice immunized with the native protein. These results show that the selected epitopes of ***PsaA*** protein are immunogenic and protective in mice. These epitopes need to be evaluated further as alternatives to currently

available vaccines.

L12 ANSWER 5 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN
AN 2002:51509 CAPLUS
DN 136:117369
TI Multiple antigenic peptides induce protective immune response against ***Streptococcus*** pneumoniae
IN Ades, Edwin W.; Johnson, Scott E.; Jue, Danny L.; Sampson, Jacquelyn S.; Carlone, George M.
PA The Government of the United States of America, as Represented by the Secretary, Department of Health and Human Services, USA
SO PCT Int. Appl., 86 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002004497	A2	20020117	WO 2001-US21626	20010710
	WO 2002004497	A3	20010710		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	AU 2001071935	A5	20020121	AU 2001-71935	20010710
	EP 1301530	A2	20030416	EP 2001-950993	20010710
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004502782	T2	20040129	JP 2002-509360	20010710
PRAI	US 2000-613092	A2	20000710		
	WO 2001-US21626	W	20010710		

AB The authors disclose the cloning and immunogenicity of the pneumococcal surface A protein (PspA) of S. pneumoniae challenge. In addn., the authors disclose epitope mapping for anti-PspA monoclonal antibodies obtained by panning of a phage display library. In one example, immunization of xid mice with PspA provided protective immunity against subsequent challenge. A in a second example, immunization of Balb/C mice with ***lipidated*** peptides or multiple antigenic peptide constructs were shown to inhibit bacterial colonization.

L12 ANSWER 6 OF 15 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511257 CAPLUS
DN 131:154473
TI ***Streptococcus*** pneumoniae ***lipidated*** ***PsaA*** protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and treatment of infection
IN Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940200	A1	19990812	WO 1999-US379	19990114

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

CA 2319404 AA 19990812 CA 1999-2319404 19990114
AU 9923131 A1 19990823 AU 1999-23131 19990114
EP 1053329 A1 20001122 EP 1999-903011 19990114
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI
BR 9909097 A 20001205 BR 1999-9097 19990114
JP 2002505083 T2 20020219 JP 2000-530614 19990114
PRAI US 1998-17782 A 19980203
WO 1999-US379 W 19990114

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of Borrelia burgdorferi gene ospA lipoprotein (including the signal peptide) fused to the mature form of ***Streptococcus*** pneumoniae gene ***psaA*** pneumococcal surface protein A (***PsaA*** , previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of ***lipidated*** ***PsaA*** proteins. The invention further provides purifn. methods used to obtain the recombinant ***PsaA*** proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic ***lipidated*** ***PsaA*** proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of ***lipidated*** ***PsaA*** proteins was included in the invention.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 7 OF 15 USPATFULL on STN
AN 2004:18393 USPATFULL
TI Oral solid dose vaccine
IN Vande-Velde, Vincent, Rixensart, BELGIUM
PI US 2004013695 A1 20040122
AI US 2003-344798 A1 20030804 (10)
WO 2001-IB1711 20010814
PRAI GB 2000-2008991 20000815
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1045
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel vaccine formulations suitable for oral administration. The vaccine formulations are in a solid form comprising antigen and suitable excipients, which after insertion into the mouth, rapidly dissolve in saliva, thereby releasing the vaccine into the mouth. Specifically, the solid form may consist of a cake of vaccine which is formed from a liquid solution or suspension by sublimation, preferably sublimation by lyophilisation. Preferred vaccines are those containing antigens which are or are derived from pathogens that normally infect or invade the host through a mucosal membrane, or those vaccines that further comprise an antacid. Particularly preferred vaccines are combination vaccines that comprise more than one antigen, and more preferably when the antigens are from

more than one pathogen.

L12 ANSWER 8 OF 15 USPATFULL on STN
AN 2003:231636 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a. (non-U.S. corporation)
PI US 2003161834 A1 20030828
AI US 2003-379164 A1 20030303 (10)
RLI Division of Ser. No. US 2000-690921, filed on 18 Oct 2000, GRANTED, Pat. No. US 6544518 Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000, UNKNOWN Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999, GRANTED, Pat. No. US 6558670
PRAI GB 1999-8885 19990419
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property- UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 1737
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.

L12 ANSWER 9 OF 15 USPATFULL on STN
AN 2003:213285 USPATFULL
TI Vaccine against ***streptococcus*** pneumoniae capsular polysaccharides
IN Capiau, Carine, Rixensart, BELGIUM
Deschamps, Marguerite, Rixensart, BELGIUM
Desmons, Pierre Michel, Rixensart, BELGIUM
Laferriere, Craig Antonyjoseph, Rixensart, BELGIUM
Poolman, Jan, Rixensart, BELGIUM
Prieels, Jean-Paul, Rixensart, BELGIUM
PA SmithKline Beecham Biologicals S.A. (non-U.S. corporation)
PI US 2003147922 A1 20030807
AI US 2002-228666 A1 20020826 (10)
RLI Continuation of Ser. No. US 2001-936933, filed on 19 Dec 2001, ABANDONED A 371 of International Ser. No. WO 2000-EP2465, filed on 17 Mar 2000, UNKNOWN
PRAI GB 1999-16677 19990715
GB 1999-6437 19990319
GB 1999-9077 19990420
GB 1999-9466 19990423
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property - UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 19
ECL Exemplary Claim: 1

DRWN 1 Drawing Page(s)
LN.CNT 2547
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to the field of bacterial polysaccharide antigen vaccines. In particular, the present invention relates to specific advantageous pnumococcal polysaccharide conjugates adjuvanted with 3D-MPL and substantially devoid aluminium-based adjuvant.

L12 ANSWER 10 OF 15 USPATFULL on STN
AN 2003:140134 USPATFULL
TI Oil in water emulsions containing saponins
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals S.A. (non-U.S. corporation)
PI US 2003095974 A1 20030522
AI US 2002-139815 A1 20020506 (10)
RLI Continuation of Ser. No. US 2000-486997, filed on 31 Jul 2000, ABANDONED A 371 of International Ser. No. WO 1998-EP5715, filed on 2 Sep 1998, UNKNOWN
PRAI GB 1997-18902 19970905
GB 1997-20982 19971002
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property - UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 1381
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an oil in water emulsion vaccine composition. In particular, the present invention relates to a vaccine adjuvant formulation based on oil in water emulsion comprising a metabolisable oil and a saponin, wherein the oil and a saponin are present in a ratio of between 1:1 and 200:1. The invention further relates to methods for preparing the emulsion and its use in medicine.

L12 ANSWER 11 OF 15 USPATFULL on STN
AN 2003:123086 USPATFULL
TI Vaccine adjuvants
IN Friede, Martin, Court St Etienne, BELGIUM
Hermand, Philippe, Court St Etienne, BELGIUM
PA SmithKline Beechman Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6558670 B1 20030506
AI US 1999-301829 19990429 (9)
PRAI BE 1999-8885 19990419
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Sutton, Jeffrey A., Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 721
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, preferably the saponins used in said adjuvant combinations are haemolytic. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the

adjuvants and vaccines of the present invention and their use as medicaments.

L12 ANSWER 12 OF 15 USPATFULL on STN
AN 2003:95812 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6544518 B1 20030408
AI US 2000-690921 20001018 (9)
RLI Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000
Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999
PRAI GB 1999-8885 19990419
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Sutton, Jeffery A., Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1721
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.

L12 ANSWER 13 OF 15 USPATFULL on STN
AN 2003:51224 USPATFULL
TI Peptide extended glycosylated polypeptides
IN Okkels, Jens Sigurd, Vedbaek, DENMARK
Jensen, Anne Dam, Copenhagen, DENMARK
van den Hazel, Bart, Copenhagen, DENMARK
PI US 2003036181 A1 20030220
AI US 2001-896896 A1 20010629 (9)
PRAI DK 2000-1027 20000630
DK 2000-1092 20000714
WO 2000-DK743 20001229
WO 2001-DK90 20010209
US 2000-217497P 20000711 (60)
US 2000-225558P 20000816 (60)
DT Utility
FS APPLICATION
LREP MAXYGEN, INC., 515 GALVESTON DRIVE, RED WOOD CITY, CA, 94063
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 4732
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB Glycosylated polypeptides comprising the primary structure NH.sub.2--X--Pp--COOH, wherein X is a peptide addition comprising or contributing to a glycosylation site, and Pp is a polypeptide of interest or comprising the primary structure NH.sub.2-P.sub.x--X--

P.sub.y-COOH, wherein P.sub.x is an N-terminal part of a polypeptide Pp of interest, P.sub.y is a C-terminal part of said polypeptide Pp, and X is a peptide addition comprising or contributing to a glycosylation site are provided. The glycosylated polypeptides possess improved properties as compared to the polypeptide of interest.

L12 ANSWER 14 OF 15 USPATFULL on STN
AN 2003:13075 USPATFULL
TI Vaccine comprising an iscom consisting of sterol and saponin which is free of additional detergent
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
PA SmithKline Beecham Biologicals, S.A., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6506386 B1 20030114
WO 2000007621 20000217
AI US 2001-744800 20010604 (9)
WO 1999-EP5587 19990803
PRAI GB 1998-17052 19980805
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Kinzig, Charles M., Gimmi, Edward R.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 592
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides an improved adjuvant formulation and a process for producing said adjuvant. The adjuvant comprises an ISCOM structure comprising a saponin, said ISCOM structure being devoid of additional detergent.

L12 ANSWER 15 OF 15 USPATFULL on STN
AN 2002:81034 USPATFULL
TI Vaccines
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals, s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6372227 B1 20020416
US 2002058047 A1 20020516
WO 9912565 19990318
AI US 2000-486996 20000424 (9)
WO 1998-EP5714 19980902
20000424 PCT 371 date
PRAI GB 1997-18901 19970905
DT Utility
FS GRANTED
EXNAM Primary Examiner: Stucker, Jeffrey
LREP Kerekes, Zoltan, Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1491
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to oil in water emulsion compositions, their use in medicine, in particular to their use in augmenting immune responses to a wide range of antigens, and to methods of their manufacture; the compositions having oil phase and an aqueous phase, a sterol and a saponin; the sterol being present in the oil phase and the saponin being present in the aqueous phase.

=> s l11 and borrelia
L13 30 L11 AND BORRELIA

=> s l13 and lipoprotein
L14 22 L13 AND LIPOPROTEIN
=> d bib ab 1-
YOU HAVE REQUESTED DATA FROM 22 ANSWERS - CONTINUE? Y/(N):y

L14 ANSWER 1 OF 22 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN
AN 2000:174353 BIOSIS
DN PREV200000174353
TI Purification and characterization of ***Streptococcus*** pneumoniae palmitoylated pneumococcal surface adhesin A expressed in Escherichia coli.
AU De, B. K. [Reprint author]; Sampson, J. S.; Ades, E. W.; Huebner, R. C.; Jue, D. L.; Johnson, S. E.; Espina, M.; Stinson, A. R.; Briles, D. E.; Carlone, G. M.
CS Centers for Disease Control and Prevention, 1600 Clifton Road, NE, Atlanta, GA, 30333, USA
SO Vaccine, (March 6, 2000) Vol. 18, No. 17, pp. 1811-1821. print.
CODEN: VACCDE. ISSN: 0264-410X.
DT Article
LA English
ED Entered STN: 3 May 2000
Last Updated on STN: 4 Jan 2002
AB All ***Streptococcus*** pneumoniae isolates tested to date express a species-common ***lipoprotein*** designated as pneumococcal surface adhesin A (***PsaA***). This protein is cell-associated, hydrophobic, immunogenic, and genetically conserved. It is currently under investigation as a potential component in third-generation pneumococcal vaccine formulations. To overcome the problem of low-level expression of native hydrophobic ***PsaA*** in S. pneumoniae, and also of the recombinant ***PsaA*** (rPsaA) in Escherichia coli, we generated a stable E. coli construct expressing functional palmitoylated rPsaA (apprx10 mg/l of fermentation culture) using ***Borrelia*** burgdorferi outer surface protein A (OspA, a hydrophobic ***lipoprotein***) signal peptide. By Western blot analysis, the chimeric rPsaA (apprx34 kDa) was detected in the cell lysate using anti- ***PsaA*** antibodies. It was partially purified by extracting the cell pellet with PBS/Triton XR-114 buffers, followed by anion exchange filter chromatography. A trypsin digestion profile of rPsaA closely resembled that of the native protein, as revealed by SDS-PAGE/silver staining. Lipidation of rPsaA was confirmed by labeling recombinant E. coli cells with (3H) palmitic acid and analyzing the labeled E. coli cells by Western blotting coupled with autoradiography. Further, analysis of purified rPsaA by mass spectrometry (MALDI-TOF) revealed a heterogenous spectrum with a major peak (M+H)+1 of mass 33,384 Da (theoretical mass of palmitoylated rPsaA=33,361 Da). Purified rPsaA was immunogenic in CBA/NCAHN-XID female mice following intranasal immunization with or without adjuvant, as determined by measurement of anti- ***PsaA*** serum IgG levels. These anti- ***PsaA*** antibodies reacted with both native and rPsaA polypeptides. Our data strongly suggest that E. coli-expressed rPsaA is palmitoylated and closely resembles the native protein in structure and immunogenicity. It was also observed to elicit measurable protection against nasopharyngeal carriage with S. pneumoniae.

L14 ANSWER 2 OF 22 CAPLUS COPYRIGHT 2004 ACS on STN
AN 1999:511257 CAPLUS
DN 131:154473
TI ***Streptococcus*** pneumoniae lipidated ***PsaA*** protein, a chimeric DNA molecule encoding it, its recombinant production, isolation and purification, and its use in a vaccine for the prevention and

treatment of infection
IN Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.; Huebner, Robert C.
PA Center for Disease Control and Prevention, USA
SO PCT Int. Appl., 40 pp.
CODEN: PIXXD2
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9940200	A1	19990812	WO 1999-US379	19990114
	W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	CA 2319404	AA	19990812	CA 1999-2319404	19990114
	AU 9923131	A1	19990823	AU 1999-23131	19990114
	EP 1053329	A1	20001122	EP 1999-903011	19990114
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
	BR 9909097	A	20001205	BR 1999-9097	19990114
	JP 2002505083	T2	20020219	JP 2000-530614	19990114
PRAI	US 1998-17782	A	19980203		
	WO 1999-US379	W	19990114		

AB The invention provides a chimeric DNA mol. contg. the first 52 amino acids of ***Borrelia*** burgdorferi gene ospA ***lipoprotein*** (including the signal peptide) fused to the mature form of ***Streptococcus*** pneumoniae gene ***psaA*** pneumococcal surface protein A (***PsaA*** , previously known as pneumococcal fimbrial protein A). The invention also provides an expression vector contg. the chimeric DNA mol., and the use of the vector for recombinant prodn. of lipidated ***PsaA*** proteins. The invention further provides purifn. methods used to obtain the recombinant ***PsaA*** proteins, and use of these proteins in immunol. compns. Also provided are vaccines comprising immunogenic lipidated ***PsaA*** proteins and methods of use of such vaccines in the prevention and treatment of S. pneumoniae infection. The sequence of the chimeric DNA mol. used in the recombinant prodn. of lipidated ***PsaA*** proteins was included in the invention.
RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L14 ANSWER 3 OF 22 USPATFULL on STN
AN 2004:57454 USPATFULL
TI Novel compounds
IN Thonnard, Joelle, Rixensart, BELGIUM
PI US 2004043456 A1 20040304
AI US 2003-415017 A1 20030922 (10)
WO 2001-EP12391 20011024
PRAI GB 2000-25997 20001024
DT Utility
FS APPLICATION
LREP DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 2947
AB The invention provides BASB209 polypeptides and polynucleotides encoding

BASB209 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

L14 ANSWER 4 OF 22 USPATFULL on STN
AN 2004:51738 USPATFULL
TI Haemophilus Influenzae basb202 polypeptide, production, vaccine and diagnostic use
IN Thornnard, Joelle A, Rixensart, BELGIUM
PI US 2004039169 A1 20040226
AI US 2003-380817 A1 20030828 (10)
WO 2001-EP10979 20010918
PRAI GB 2000-22992 20000919
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 3201
AB The invention provides BASB202 polypeptides and polynucleotides encoding BASB202 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

L14 ANSWER 5 OF 22 USPATFULL on STN
AN 2004:38579 USPATFULL
TI ***Streptococcus*** pneumoniae polynucleotides and sequences
IN Kunsch, Charles A., Norcross, GA, UNITED STATES
Choi, Gil H., Rockville, MD, UNITED STATES
Dillon, Patrick J., Carlsbad, CA, UNITED STATES
Rosen, Craig A., Laytonsville, MD, UNITED STATES
Barash, Steven C., Rockville, MD, UNITED STATES
Fannon, Michael R., Silver Spring, MD, UNITED STATES
Dougherty, Brian A., Killingworth, CT, UNITED STATES
PA Human Genome Sciences, Inc., Rockville, MD, UNITED STATES, 20850 (U.S. corporation)
PI US 2004029118 A1 20040212
AI US 2002-158844 A1 20020603 (10)
RLI Division of Ser. No. US 1997-961527, filed on 30 Oct 1997, GRANTED, Pat. No. US 6420135
PRAI US 1996-29960P 19961031 (60)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 9165
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of ***Streptococcus*** pneumoniae, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

L14 ANSWER 6 OF 22 USPATFULL on STN
AN 2004:30666 USPATFULL
TI Base205 polypeptides and polynucleotides therefor

IN Thonnard, Joelle, Rixensart, BELGIUM
PI US 2004022803 A1 20040205
AI US 2003-399089 A1 20030818 (10)
WO 2001-EP11560 20011005
PRAI GB 2000-25171 20001013
DT Utility
FS APPLICATION
LREP DECHERT, ATTN: ALLEN BLOOM, ESQ, 4000 BELL ATLANTIC TOWER, 1717 ARCH STREET, PHILADELPHIA, PA, 19103
CLMN Number of Claims: 26
ECL Exemplary Claim: 1
DRWN 7 Drawing Page(s)
LN.CNT 2950
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides BASB205 polypeptides and polynucleotides encoding BASB205 polypeptides and methods for producing such polypeptides by recombinant techniques. Also provided are diagnostic, prophylactic and therapeutic uses.

L14 ANSWER 7 OF 22 USPATFULL on STN
AN 2004:18393 USPATFULL
TI Oral solid dose vaccine
IN Vande-Velde, Vincent, Rixensart, BELGIUM
PI US 2004013695 A1 20040122
AI US 2003-344798 A1 20030804 (10)
WO 2001-IB1711 20010814
PRAI GB 2000-2008991 20000815
DT Utility
FS APPLICATION
LREP SMITHKLINE BEECHAM CORPORATION, CORPORATE INTELLECTUAL PROPERTY-US, UW2220, P. O. BOX 1539, KING OF PRUSSIA, PA, 19406-0939
CLMN Number of Claims: 24
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 1045
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to novel vaccine formulations suitable for oral administration. The vaccine formulations are in a solid form comprising antigen and suitable excipients, which after insertion into the mouth, rapidly dissolve in saliva, thereby releasing the vaccine into the mouth. Specifically, the solid form may consist of a cake of vaccine which is formed from a liquid solution or suspension by sublimation, preferably sublimation by lyophilisation. Preferred vaccines are those containing antigens which are or are derived from pathogens that normally infect or invade the host through a mucosal membrane, or those vaccines that further comprise an antacid. Particularly preferred vaccines are combination vaccines that comprise more than one antigen, and more preferably when the antigens are from more than one pathogen.

L14 ANSWER 8 OF 22 USPATFULL on STN
AN 2004:12955 USPATFULL
TI Novel human polynucleotides and polypeptides encoded thereby
IN Leach, Martin D., Madison, CT, UNITED STATES
Shimkets, Richard A., Guilford, CT, UNITED STATES
PI US 2004009474 A1 20040115
AI US 2001-864408 A1 20010524 (9)
PRAI US 2000-206690P 20000524 (60)
DT Utility
FS APPLICATION
LREP Ivor R. Elrifi, Esq., MIintz, Levin, Cohn, Ferris,, Glovsky and Popeo, P.C., One Financial Center, Boston, MA, 02111
CLMN Number of Claims: 32

ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 21366
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides ORFX, a novel isolated polypeptide, as well as a polynucleotide encoding ORFX and antibodies that immunospecifically bind to ORFX or any derivative, variant, mutant, or fragment of the ORFX polypeptide, polynucleotide or antibody. The invention additionally provides methods in which the ORFX polypeptide, polynucleotide and antibody are used in detection and treatment of a broad range of pathological states, as well as to others uses.

L14 ANSWER 9 OF 22 USPATFULL on STN
AN 2003:240330 USPATFULL
TI Nucleic acid and amino acid sequences relating to Enterococcus faecalis for diagnostics and therapeutics
IN Doucette-Stamm, Lynn A., 14 Flanagan Dr., Framingham, MA, United States 01701
Bush, David, 205 Holland St., Somerville, MA, United States 02144
PI US 6617156 B1 20030909
AI US 1998-134000 19980813 (9)
PRAI US 1997-55778P 19970815 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Mosher, Mary E.
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 19
ECL Exemplary Claim: 1,5,14
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 13738
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated polypeptide and nucleic acid sequences derived from Enterococcus faecalis that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

L14 ANSWER 10 OF 22 USPATFULL on STN
AN 2003:231636 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a. (non-U.S. corporation)
PI US 2003161834 A1 20030828
AI US 2003-379164 A1 20030303 (10)
RLI Division of Ser. No. US 2000-690921, filed on 18 Oct 2000, GRANTED, Pat. No. US 6544518 Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000, UNKNOWN Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999, GRANTED, Pat. No. US 6558670
PRAI GB 1999-8885 19990419
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property- UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 12 Drawing Page(s)
LN.CNT 1737
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are

suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.

L14 ANSWER 11 OF 22 USPATFULL on STN
AN 2003:190673 USPATFULL
TI Staphylococcus aureus polynucleotides and sequences
IN Kunsch, Charles A., Norcross, GA, United States
Choi, Gil H., Rockville, MD, United States
Barash, Steven, Rockville, MD, United States
Dillon, Patrick J., Carlsbad, CA, United States
Fannon, Michael R., Silver Spring, MD, United States
Rosen, Craig A., Laytonsville, MD, United States
PA Human Genome Sciences, Inc., Rockville, MD, United States (U.S. corporation)
PI US 6593114 B1 20030715
AI US 1997-956171 19971020 (8)
RLI Continuation-in-part of Ser. No. US 1997-781986, filed on 3 Jan 1997
PRAI US 1996-9861P 19960105 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Duffy, Patricia A.
LREP Human Genome Sciences, Inc.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 7835
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of Staphylococcus aureus, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

L14 ANSWER 12 OF 22 USPATFULL on STN
AN 2003:169096 USPATFULL
TI Nucleic acid sequences and expression system relating to Enterococcus faecium for diagnostics and therapeutics
IN Doucette-Stamm, Lynn A., Framingham, MA, United States
Bush, David, Somerville, MA, United States
PA Genome Therapeutics Corporation, Waltham, MA, United States (U.S. corporation)
PI US 6583275 B1 20030624
AI US 1998-107532 19980630 (9)
PRAI US 1998-85598P 19980514 (60)
US 1997-51571P 19970702 (60)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Marschel, Ardin H.
LREP Genome Therapeutics Corporation
CLMN Number of Claims: 34
ECL Exemplary Claim: 1
DRWN 0 Drawing Figure(s); 0 Drawing Page(s)
LN.CNT 15265

CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The invention provides isolated polypeptide and nucleic acid sequences derived Enterococcus faecium that are useful in diagnosis and therapy of pathological conditions; antibodies against the polypeptides; and methods for the production of the polypeptides. The invention also provides methods for the detection, prevention and treatment of pathological conditions resulting from bacterial infection.

L14 ANSWER 13 OF 22 USPATFULL on STN
AN 2003:140134 USPATFULL
TI Oil in water emulsions containing saponins
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals S.A. (non-U.S. corporation)
PI US 2003095974 A1 20030522
AI US 2002-139815 A1 20020506 (10)
RLI Continuation of Ser. No. US 2000-486997, filed on 31 Jul 2000, ABANDONED A 371 of International Ser. No. WO 1998-EP5715, filed on 2 Sep 1998, UNKNOWN
PRAI GB 1997-18902 19970905
GB 1997-20982 19971002
DT Utility
FS APPLICATION
LREP GLAXOSMITHKLINE, Corporate Intellectual Property - UW2220, P.O. Box 1539, King of Prussia, PA, 19406-0939
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 19 Drawing Page(s)
LN.CNT 1381
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to an oil in water emulsion vaccine composition. In particular, the present invention relates to a vaccine adjuvant formulation based on oil in water emulsion comprising a metabolisable oil and a saponin, wherein the oil and a saponin are present in a ratio of between 1:1 and 200:1. The invention further relates to methods for preparing the emulsion and its use in medicine.

L14 ANSWER 14 OF 22 USPATFULL on STN
AN 2003:123086 USPATFULL
TI Vaccine adjuvants
IN Friede, Martin, Court St Etienne, BELGIUM
Hermand, Philippe, Court St Etienne, BELGIUM
PA SmithKline Beechman Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6558670 B1 20030506
AI US 1999-301829 19990429 (9)
PRAI BE 1999-8885 19990419
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Sutton, Jeffrey A., Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 5
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 721
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, preferably the saponins used in said adjuvant combinations are haemolytic. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the

adjuvants and vaccines of the present invention and their use as medicaments.

L14 ANSWER 15 OF 22 USPATFULL on STN
AN 2003:95812 USPATFULL
TI Vaccines
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
Gerard, Catherine Marie Ghislaine, Rhode Saint Genese, BELGIUM
Hermand, Philippe, Court-Saint-Etienne, BELGIUM
PA SmithKline Beecham Biologicals s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6544518 B1 20030408
AI US 2000-690921 20001018 (9)
RLI Continuation-in-part of Ser. No. WO 2000-EP2920, filed on 4 Apr 2000
Continuation-in-part of Ser. No. US 1999-301829, filed on 29 Apr 1999
PRAI GB 1999-8885 19990419
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Sutton, Jeffery A., Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1721
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to adjuvant compositions which are suitable to be used in vaccines. In particular, the adjuvant compositions of the present invention comprises a saponin and an immunostimulatory oligonucleotide, optionally with a carrier. Also provided by the present invention are vaccines comprising the adjuvants of the present invention and an antigen. Further provided are methods of manufacture of the adjuvants and vaccines of the present invention and their use as medicaments. Methods of treating an individual susceptible to or suffering from a disease by the administration of the vaccines of the present invention are also provided.

L14 ANSWER 16 OF 22 USPATFULL on STN
AN 2003:78516 USPATFULL
TI STAPHYLOCOCCUS AUREUS POLYNUCLEOTIDES AND SEQUENCES
IN KUNSCH, CHARLES A., GAITHERSBURG, MD, UNITED STATES
CHOI, GIL A., ROCKVILLE, MD, UNITED STATES
BARASH, STEVEN C., ROCKVILLE, MD, UNITED STATES
DILLON, PATRICK J., GAITHERSBURG, MD, UNITED STATES
FANNON, MICHAEL R., SILVER SPRING, MD, UNITED STATES
ROSEN, CRAIG A., LAYTONSVILLE, MD, UNITED STATES
PI US 2003054436 A1 20030320
AI US 1997-781986 A1 19970103 (8)
PRAI US 1996-9861P 19960105 (60)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 29
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 13414
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of Staphylococcus aureus, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer

readable media, and computer-based systems and methods which facilitate its use.

L14 ANSWER 17 OF 22 USPATFULL on STN
AN 2003:64662 USPATFULL
TI Human genes and gene expression products
IN Williams, Lewis T., Mill Valley, CA, UNITED STATES
Escobedo, Jaime, Alamo, CA, UNITED STATES
Innis, Michael A., UNITED STATES
Garcia, Pablo Dominguez, San Francisco, CA, UNITED STATES
Sudduth-Klinger, Julie, Kensington, CA, UNITED STATES
Reinhard, Christoph, Alameda, CA, UNITED STATES
Randazzo, Filippo, Oakland, CA, UNITED STATES
Kennedy, Giulia C., San Francisco, CA, UNITED STATES
Pot, David, Arlington, VA, UNITED STATES
Kassam, Altaf, Oakland, CA, UNITED STATES
Lamson, George, Moraga, CA, UNITED STATES
Drmanac, Radjoe, Palo Alto, CA, UNITED STATES
Dickson, Mark, Hollister, CA, UNITED STATES
Labat, Ivan, Mountain View, CA, UNITED STATES
Jones, Lee William, Sunnyvale, CA, UNITED STATES
Stache-Crain, Birgit, Sunnyvale, CA, UNITED STATES
PI US 2003044783 A1 20030306
AI US 2001-803719 A1 20010309 (9)
PRAI US 2000-188609P 20000309 (60)
DT Utility
FS APPLICATION
LREP Chiron Corporation Intellectual Property -R440, PO Box 8097, Emeryville, CA, 94662-8097
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN No Drawings
LN.CNT 23459
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to novel human polynucleotides and variants thereof, their encoded polypeptides and variants thereof, to genes corresponding to these polynucleotides and to proteins expressed by the genes. The invention also relates to diagnostic and therapeutic agents employing such novel human polynucleotides, their corresponding genes or gene products, e.g., these genes and proteins, including probes, antisense constructs, and antibodies.

L14 ANSWER 18 OF 22 USPATFULL on STN
AN 2003:29853 USPATFULL
TI Use of coiled-coil structural scaffold to generate structure-specific peptides
IN Houston, Michael E., Edmonton, CANADA
Hodges, Robert, Denver, CO, UNITED STATES
PI US 2003021795 A1 20030130
AI US 2001-882774 A1 20010614 (9)
PRAI US 2000-211892P 20000614 (60)
US 2000-213387P 20000623 (60)
DT Utility
FS APPLICATION
LREP BURNS DOANE SWECKER & MATHIS L L P, POST OFFICE BOX 1404, ALEXANDRIA, VA, 22313-1404
CLMN Number of Claims: 57
ECL Exemplary Claim: 1
DRWN 8 Drawing Page(s)
LN.CNT 1934
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to the use of a coiled-coil structural scaffold to generate structure-specific peptides, including synthetic peptides

derived from naturally occurring proteins of various origin. The structure of the synthetic peptides utilizes a scaffold of heptad repeat units into which epitopes from coiled-coil regions of native proteins are spliced. In particular, the synthetic peptides may be based on microbial proteins, especially surface proteins, which occur naturally in the coiled-coil form such as pneumococcal surface proteins A and C. The synthetic peptides are immunogenic and can be used to elicit an immune response in an animal. Accordingly, they are useful as vaccines or to stimulate antibody production or cell-mediated immunity to the naturally occurring protein.

L14 ANSWER 19 OF 22 USPATFULL on STN
AN 2003:13075 USPATFULL
TI Vaccine comprising an iscom consisting of sterol and saponin which is free of additional detergent
IN Friede, Martin, Farnham, UNITED KINGDOM
Garcon, Nathalie, Wavre, BELGIUM
PA SmithKline Beecham Biologicals, S.A., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6506386 B1 20030114
WO 2000007621 20000217
AI US 2001-744800 20010604 (9)
WO 1999-EP5587 19990803
PRAI GB 1998-17052 19980805
DT Utility
FS GRANTED
EXNAM Primary Examiner: Scheiner, Laurie
LREP Kinzig, Charles M., Gimmi, Edward R.
CLMN Number of Claims: 15
ECL Exemplary Claim: 1
DRWN 2 Drawing Figure(s); 1 Drawing Page(s)
LN.CNT 592
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides an improved adjuvant formulation and a process for producing said adjuvant. The adjuvant comprises an ISCOM structure comprising a saponin, said ISCOM structure being devoid of additional detergent.

L14 ANSWER 20 OF 22 USPATFULL on STN
AN 2002:221971 USPATFULL
TI ENTEROCOCCUS FAECALIS POLYNUCLEOTIDES AND POLYPEPTIDES
IN KUNSCH, CHARLES A., ATLANTA, GA, UNITED STATES
DILLON, PATRICK J., CARLSBAD, CA, UNITED STATES
BARASH, STEVEN, ROCKVILLE, MD, UNITED STATES
PI US 2002120116 A1 20020829
AI US 1998-70927 A1 19980504 (9)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 18
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 13315
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of Enterococcus faecalis, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

L14 ANSWER 21 OF 22 USPATFULL on STN
AN 2002:81034 USPATFULL
TI Vaccines
IN Garcon, Nathalie, Wavre, BELGIUM
Momin, Patricia Marie Christine Aline Francoise, Brussells, BELGIUM
PA SmithKline Beecham Biologicals, s.a., Rixensart, BELGIUM (non-U.S. corporation)
PI US 6372227 B1 20020416
US 2002058047 A1 20020516
WO 9912565 19990318
AI US 2000-486996 20000424 (9)
WO 1998-EP5714 19980902
20000424 PCT 371 date
PRAI GB 1997-18901 19970905
DT Utility
FS GRANTED
EXNAM Primary Examiner: Stucker, Jeffrey
LREP Kerekes, Zoltan, Venetianer, Stephen, Kinzig, Charles M.
CLMN Number of Claims: 25
ECL Exemplary Claim: 1
DRWN 15 Drawing Figure(s); 12 Drawing Page(s)
LN.CNT 1491
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention relates to oil in water emulsion compositions, their use in medicine, in particular to their use in augmenting immune responses to a wide range of antigens, and to methods of their manufacture; the compositions having oil phase and an aqueous phase, a sterol and a saponin; the sterol being present in the oil phase and the saponin being present in the aqueous phase.

L14 ANSWER 22 OF 22 USPATFULL on STN
AN 2002:55159 USPATFULL
TI ***STREPTOCOCCUS*** PNEUMONIAE POLYNUCLEOTIDES AND SEQUENCES
IN KUNSCH, CHARLES A., GAITHERSBURG, MD, UNITED STATES
CHOI, GIL H., ROCKVILLE, MD, UNITED STATES
DILLON, PATRICK J., CARLSBAD, CA, UNITED STATES
ROSEN, CRAIG A., LAYTONSVILLE, MD, UNITED STATES
BARASH, STEVEN C., ROCKVILLE, MD, UNITED STATES
FANNON, MICHAEL R., SILVER SPRING, MD, UNITED STATES
DOUGHERTY, BRIAN A., MT. AIRY, MD, UNITED STATES
PI US 2002032323 A1 20020314
US 6420135 B2 20020716
AI US 1997-961527 A1 19971030 (8)
PRAI US 1996-29960P 19961031 (60)
DT Utility
FS APPLICATION
LREP HUMAN GENOME SCIENCES INC, 9410 KEY WEST AVENUE, ROCKVILLE, MD, 20850
CLMN Number of Claims: 20
ECL Exemplary Claim: 1
DRWN 2 Drawing Page(s)
LN.CNT 7752
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB The present invention provides polynucleotide sequences of the genome of ***Streptococcus*** pneumoniae, polypeptide sequences encoded by the polynucleotide sequences, corresponding polynucleotides and polypeptides, vectors and hosts comprising the polynucleotides, and assays and other uses thereof. The present invention further provides polynucleotide and polypeptide sequence information stored on computer readable media, and computer-based systems and methods which facilitate its use.

=> s recombinant lipidated psaa

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L15          1 RECOMBINANT LIPIDATED PSAA

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L15  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:511257  CAPLUS
DN   131:154473
TI   Streptococcus pneumoniae lipidated PsaA protein, a chimeric DNA molecule
     encoding it, its recombinant production, isolation and purification, and
     its use in a vaccine for the prevention and treatment of infection
IN   Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.;
     Huebner, Robert C.
PA   Center for Disease Control and Prevention, USA
SO   PCT Int. Appl., 40 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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PI   WO 9940200         A1   19990812       WO 1999-US379    19990114
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2319404          AA   19990812       CA 1999-2319404  19990114
     AU 9923131          A1   19990823       AU 1999-23131    19990114
     EP 1053329          A1   20001122       EP 1999-903011   19990114
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     BR 9909097          A    20001205       BR 1999-9097     19990114
     JP 2002505083       T2   20020219       JP 2000-530614   19990114
PRAI US 1998-17782       A    19980203
     WO 1999-US379       W    19990114
RE.CNT  10     THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT


=> s lipidated psaa
L16          1 LIPIDATED PSAA

=> d

L16  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2004 ACS on STN
AN   1999:511257  CAPLUS
DN   131:154473
TI   Streptococcus pneumoniae   ***lipidated***      ***PsaA***   protein, a
     chimeric DNA molecule encoding it, its recombinant production, isolation
     and purification, and its use in a vaccine for the prevention and
     treatment of infection
IN   Ades, Edwin W.; Carlone, George M.; De, Barun K.; Sampson, Jacquelyn S.;
     Huebner, Robert C.
PA   Center for Disease Control and Prevention, USA
SO   PCT Int. Appl., 40 pp.
     CODEN: PIXXD2
DT   Patent
LA   English
FAN.CNT 1
     PATENT NO.        KIND  DATE           APPLICATION NO.  DATE
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PI   WO 9940200         A1   19990812       WO 1999-US379    19990114
         W:  AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE,
             DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
             KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW,
             MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR,
             TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES,
             FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI,
             CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
     CA 2319404          AA   19990812       CA 1999-2319404  19990114
     AU 9923131          A1   19990823       AU 1999-23131    19990114
     EP 1053329          A1   20001122       EP 1999-903011   19990114
         R:  AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
     BR 9909097          A    20001205       BR 1999-9097     19990114
     JP 2002505083       T2   20020219       JP 2000-530614   19990114
PRAI US 1998-17782       A    19980203
     WO 1999-US379       W    19990114
RE.CNT  10     THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
               ALL CITATIONS AVAILABLE IN THE RE FORMAT
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